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SOAP

A MONTHLY MAGAZINE

for Manufacturers of Soaps of All Kinds, Disinfectants, Household Insecticides, Cleansers, Deodorants, Polishes and Allied Products.

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SOAP

Volume Four
Number Seven

The Editor's Page

Killing the Goose

WE wonder if the cotton farmers and the cotton oil crushers are as strongly in favor of the proposed 45 per cent tariff rate on oils and fats as their professional representatives before the Ways and Means Committee would have that body believe. We wonder if the farmer and the cotton oil crusher realize that the new tariff is likely to kill the goose that lays their golden eggs.

From *The Cotton Oil Press* of March, we quote. "It would be better to let the tariff schedule remain as written in the law of 1922, than to run the risk of upsetting the present equilibrium of the world market in oils and fats. . . . . If hog-lard had to find its market exclusively in this country, what would happen to cotton oil? It's worth thinking about."

From *Oil & Fat Industries* of March, we quote: "Close the American markets to soya bean oil, palm kernel oil, and whale oil and they may possibly supplant American lard in the German market at a lower price. . . . . It seems advisable that those who are advocating greatly advanced import tariffs should ponder the possibility that these advanced rates may accelerate the slump in their own export trade in these commodities."

Those in the ranks of the cotton oil industry who look beyond the horizon, do not see in the proposed tariff a pot of gold and a panacea for all ills. On the contrary, they see danger to their own business. They see their oils, now almost exclusively food products, forced into competition at home on a wide scale with hog-lard for food and with cheap fats for the soap kettle, where such competition does not exist today.

The cotton farmer may be trying to kill the goose that lays the golden eggs for him, but in the last analysis, that is his own business. If and when, however, this "killing the goose" threatens to jeopardize the life of a goodly portion of the American soap industry, then it is for the soap industry to fight back with every weapon at its command. The fight has been carried on very effectively thus far by a few representatives of the soap industry. There is only one complaint. Too few soap makers have made their voices heard in Washington.

The effect on the Ways and Means Committee and on Congress generally of any appeal is almost always directly in proportion to the strength of the appeal and the number appealing. If *every* soap maker in the United States, whether he makes laundry soap, toilet soap, textile soap, liquid, potash, or any other kind of soap, would direct a strong statement to both his own Representative in the House and to the Ways and Means Committee, it would have the desired effect. If the proposed tariff becomes law, *every* soap maker is going to suffer, irrespective of the kind and quantity of soap he makes. Then why should a few companies in the industry do all the fighting? Those in the industry who have not taken some active part in opposing this tariff, do not realize the seriousness of the situation.

Let the cotton and cotton oil people, if they choose to do so, kill the goose that lays their own golden eggs, but do not let them cook the soap maker's goose at the same time. Get into this fight. It is your fight, even if you only make a barrel of liquid soap a week. Communicate with your representatives in Congress now and tell them that this tariff threatens your business existence. Do not wait until your goose is killed. Do your part now if you want the future of your business protected.

Grafting Workmen

MANUFACTURERS of soaps for various industrial purposes, especially where these soaps are used by workmen in the course of ordinary factory operations, are faced with the same selling problems as other manufacturers. Workmen, foremen, and others who have occasion to use or direct the use of soap products, are very frequently influenced in their expressed opinions by things other than the quality of the products. False arguments for or against a product by a workman to his employer are sometimes the

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outgrowth of a cash consideration or its equivalent from a salesman.

Too many manufacturers are paying graft today in order to sell their goods, not because they want to perhaps, but because they believe that they are compelled to do so. The road to avoid graft payments is in numerous instances a rocky one, frequently appearing impassible in the course of ordinary selling in competition. The sale of certain classes of goods is literally honeycombed with graft. To deny this is to close one's eyes to self evident facts. The condition exists. But what can be done about it?

Several instances have been called to our attention of late where houses which will not pay graft have had their products displaced by those who will. Workmen who have used a soap for months have suddenly discovered that it is no longer suitable, that its quality has fallen off, that it does this and that, and have at the same time, discovered with miraculous suddenness that some other product is now more particularly fitted for the work. A soap product apparently used with satisfaction for some time was found by a workman "to contain lye" and was forthwith replaced by another. And thus it goes.

We doubt if there is a firm which has not run into cases of this kind. Some are "fighting fire with fire", as they call it. In short, they take the easiest road and enter the class of graft-givers. Others are losing business in preference to giving gratuities. In any case, paying graft to an employee for his "recommendations" is not only crooked,—it is foolhardy in the long run. Competition in graft-giving, like in anything else, will take an increasing toll as time goes on unless it is stopped. It is insidious through its very secret character. Decent houses will not permit it, be they buyers or sellers; neither will they close their eyes to it and pretend innocence where they suspect salesmen or workmen as offenders.

Moisture

AN expert on soap milling recently stated that the most important factor in the milling of toilet soaps, and one which is very frequently given only minor attention, is the moisture content of the soap being milled. Better soap would be made and fewer mills would be subjected to unnecessarily harsh treatment and consequent break-downs if more attention were given to the percentage of moisture in the soap, he said.

Another soap man, one of the oldest experts in the industry, who has in his day produced many million bars of toilet soap, recently likened soapmaking to a life insurance examination. He likened the tallow to the human heart, the alkali to the lungs, and the water conditions to the urine analysis. Even though the first two be in fine condition, a minor fault in the latter is cause for rejection. Just so, if the tallow be the finest and the alkali exactly correct, the saponification can be faulty and the finished soap unsatisfactory if the water conditions in the process are not properly controlled. Water conditions both in the process and in the finished soap are of prime importance, an importance not always appreciated by soapmakers.

A Congressman from Texas recently accused the soap industry of having a strong, well-organized lobby in Washington, a lobby aiming to defeat the proposed high duties on oils and fats. For a so-called farm congressman to accuse any industry of lobbying, seems to us much like the pot calling the kettle black. If the gentleman calls the concerted fight on the oil tariff by soap makers, a "powerful lobby", then there is no question that the soap industry has one, and intends to use it.

As far as glycerin is concerned, America is self-sustaining today, say the glycerin producers. Glycerin plus glycol production is enough for all American needs. Imports during the past few years account for glycerin selling below pre-war prices. Imports of only eight million pounds in 1928 are a verification of our adequate production, they state.

United States imported 465,022 lbs. of toilet soap, valued at $163,841, during December, 1928, as compared with imports of 517,127 lbs., worth $206,045, during the same month of 1927. Imports of laundry soap totaled $3,510, 902 lbs., worth $239,830, during December, 1928, while December, 1927 imports were 4,243,943 lbs., valued at $290,191. Imports of toilet soap for all of 1928 amounted to 7,275,076 lbs., worth $2,300,746, as compared with 1927 imports of 8,186,892 lbs., valued at $2,801,576. Laundry soap exports for 1928 were 47,580,245 lbs., at a price of $3,375,355, as compared with 1927 imports amounting to 56,228,733 lbs., for $3,877,999.

United States imported less geranium oil in 1928 than in 1927, but paid a greater amount for it. The figures for 1928 were 172,775 lbs., valued at $528,000, with 1927 imports totaling 185,676 lbs., at a price of $469,000.

The Shortage of Sandalwood Oil

Causes of the Present World-Wide Scarcity and the Outlook Discussed in an Interview With

H. SYMINGTON COX

Essenflour Products, Ltd., Official Representatives of the Mysore Government in the United States

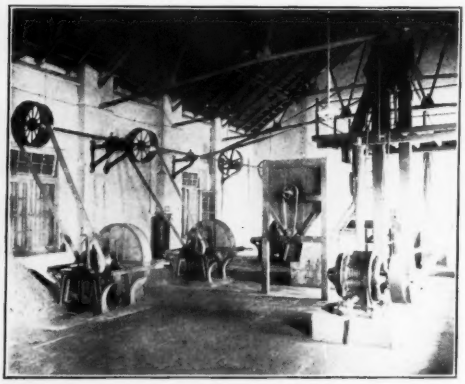
View of the Main Entrance and Office Building of the Mysore Government Sandalwood Oil Factory at Mysore, India

IN order that any situation involving the production and marketing of sandalwood oil may be clearly understood, the various world sources of this oil must be known. About seventy-five per cent of all the East Indian sandalwood oil, which is the U. S. P. sandalwood in the United States, is produced in the Mysore State, India. The wood is cut and distilled by the Mysore State Government and the cutting is strictly controlled by the Forest Department under the direction of the Conservator of Forests. About twenty-five per cent of the world's supply of sandalwood oil has come from other provinces of India, namely, Madras and South India, and some has also been produced in the Dutch East Indies. The reckless way in which the forests of the Dutch Indies have been exploited in former years, however, practically eliminates Macassar as a source of oil at this time, and it will be some time before any quantity of wood can be expected from this source as a regular supply.

From the forests of Madras, the so-called independent distillers of sandalwood throughout the world have been supplied with wood for some years past. Oil produced from Madras wood has been the chief source of supply to augment that produced in the Mysore State and distilled under the control of the Mysore sandalwood factory. Thus, it will be noted that there are in fact two distinct sources of sandalwood oil, first the Mysore State producing seventy-five per cent, and the other states of India, chiefly Madras, producing most of the balance of oil which gets into world commerce.

THE present shortage of sandalwood oil, which has become more acute during the past year and which is world wide, dates all the way back to 1923 for original causes. In fact, it is an aftermath of an unusually large cutting of wood from 1923 to 1927. In 1923, a disease called "spike" common to sandalwood trees developed quite widely throughout the forests of the Madras district. With a view to preventing a further spread of this disease which was taking a large toll in sandalwood trees, the Madras Forest Department systematically went to work to cut out all diseased trees.

This work was carried on from 1923 to 1925 at a rapid rate, and as a consequence, the sandalwood which was available for distillation showed a sudden and marked increase. In 1923, about 1,040 tons of wood were put into the auctions, and in 1924, some 1,050 tons of wood came out of the forests. As the diseased trees were gradually eliminated, the cutting became less and less. In 1925, the Madras



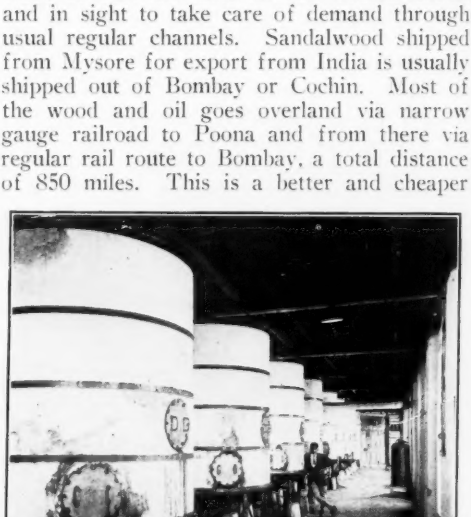
Disintegrators or hogging machines for reducing the sandalwood to a state of fine granulation prior to distillation

forests had reached their output of wood to 850 tons. Then, in order to continue a policy of conservation, the Forest Department further reduced the cutting in the Madras and Coorg areas. In November, 1928, the wood cut and sent out to the auctions was only 674 tons. It is estimated that the output in 1929 will not exceed 500 tons in the Madras area and it is anticipated that this will not be increased for some time to come. Thus, the ruthless cutting in 1923-25, made necessary to eliminate the disease from the forests, and which was responsible for larger supplies of oil from the Madras area, is the chief cause behind the present shortage of wood for distillation, and consequently of oil.

It is this Madras area of India which has, as noted above, always supplied the independent distillers of sandalwood throughout the world. With an appreciable proportion of their wood supply eliminated temporarily, it can be seen that the demand supplied through these channels in the past has naturally had to turn elsewhere for oil. The only other available source of supply has been the Mysore Government and the demand thus diverted from independent channels, has been thrown on the Mysore distilleries. The increase in demand has been larger than they have been able to take care of under the circumstances. A shortage of oil and a tight market situation has developed as a consequence.

THE present shortage of sandalwood oil has been accentuated by a steady increase in consumption over the past six years, which, now established, is finding difficulty in keeping itself supplied. This is in spite of the fact that during the same period, Mysore Government controlled distilleries have increased their output over fifty per cent. The Mysore Government is anxious to meet all demands within its power, but there is a limit to the quantity of oil which it can supply. The Government, through its agencies, is naturally taking care of the requirements of its old customers throughout the world first, and although the output this year from the Mysore factories will be considerably in excess of 1928, it will not be great enough to supply fully the demand of all the consumers formerly supplied through independent producers.

Of late, there has been considerable difficulty in obtaining freight space from India and subsequent delays in trans-shipment from England. However, a sufficient quantity of wood is now on hand in the United States and in sight to take care of demand through usual regular channels. Sandalwood shipped from Mysore for export from India is usually shipped out of Bombay or Cochin. Most of the wood and oil goes overland via narrow gauge railroad to Poona and from there via regular rail route to Bombay, a total distance of 850 miles. This is a better and cheaper



Battery of stills. Here the granulated sandalwood is distilled with steam

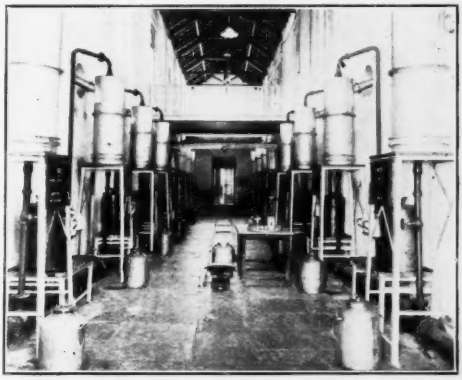
route to England than via the port of Madras owing to the difficulty of securing bottoms at the latter port.

THE peculiarities of the sandalwood tree have much to do with the present shortage of oil and the inability to step up production quickly. Sandalwood trees which are suitable for distillation grow at an altitude of from 2,000 to 3,500 feet in certain sections of India. Although the sandalwood tree grows in some profusion throughout India, those outside of the limited areas in Mysore and Madras are

Boiler house. Here the sandalwood residue from the stills is burned to furnish steam for still operations and plant power

not large enough or do not yield a sufficient quantity of oil to make it worth while cutting and distilling them. The trees which are cut for distillation have to be hauled long distances out of the forests by bullock trucks and narrow gauge railroads. The wood is cut up and reduced to a fairly fine granulation and then distilled with steam. The yield of oil, therefore, has to be sufficient to pay for these operations which are expensive. The average yield of oil from the sandalwood ordinarily distilled is about five per cent, a ton of wood yielding about 100 pounds of oil.

The manner in which the forests are conserved by the Forest Departments of Mysore and Madras is a reflection of efforts to protect this industry and to insure its future which naturally would be ruined by ruthless cutting of trees without replacement. The Forest Department of the Mysore State is refusing to devastate the sandalwood forests for any purpose whatsoever. A sandalwood tree suitable for distillation requires some forty years to grow to maturity. New trees are being set out every year to replace those which are cut down, but the growth of the new plantations is a rather uncertain affair. Where a thousand trees are planted, only a third or a half of them may grow. The mortality rate is extremely high. Although the Forest Departments, carrying many highly trained foresters on their rolls, have studied the



Battery of rectifiers. The distilled oil is rectified to secure desired quality

plantations of sandalwood over a period of years, and have experimented to a great extent, the vital factors in the growth and development of the tree are still considerable of a mystery. The subject is still being studied intensively in India.

(*Continued on Page* 81)

Unloading a Train of Sandalwood Logs from Narrow Gauge Cars at the Mysore Government Factory in Mysore

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LE VIGNAL	BAMBARI, FR. CONGO	LANGSON, TONKIN
L'ABADIE, FRANCE	BAMBAO, COMORES IS.	CHUNG-KING, CHINA
VIGONE, ITALY	TAMATAVE, MADAGASCAR	TATSIENLU, CHINA

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Saponification Versus Fat Splitting

*Quality of Original Fat, the Glycerin Market, and Character of Soap Wanted Should Determine Process**

By K. CAZAJURA
Zlatorog Works, Maribor, Czecho-Slovakia

MANY articles have been printed in the trade journals on this particular subject, and the authors of these articles have often been found to have views which were diametrically opposed to each other. Nevertheless, in spite of the numerous publications, there is a great lack of accurate data of actual operating practice and analytical information. The author has collected certain definite operating and analytical data on this subject and he has thought it advisable to publish this material in order to assist in the final solution of this much-discussed problem.

The first requirement in splitting fats is that they are subjected to a very thorough preliminary purification process. The latter operation is accomplished by cooking the fat for one hour after the addition of two percent of sulfuric acid, 60 degrees Be concentration, figured on the weight of the fat being treated. This cooking and preliminary purification are omitted in the saponification of neutral fats.

The fats, which are purified in this manner, can be subjected to Twitchell splitting only after such preliminary treatment for the reason that the fatty acids, which are obtained from the splitting process, would otherwise be obtained in dark color. This must be avoided by all means for the well-known, modern ideas of the buyers of soap are predominately in favor of light-colored products. In addition to this advantage that is gained by the preliminary purification of the fat, there is also the fact that such treatment reduces the time of splitting. Furthermore, the degree of splitting cannot be carried too far due to the present demand for light-colored soaps.

A tabulation given below contains some figures on the results secured from a number of splitting tests.

AS the figures in the tabulation below indicate the splitting operation lasted from thirteen to fifteen hours. In order to obtain a splitting effect of approximately 86 per cent. On the other hand, the splitting lasted 21 hours in order to obtain a splitting effect of 91 per cent. The splitting of grease (tallow) cannot be carried above 85 per cent without considerable difficulty for the reason that the color of the fatty acids obtained is too greatly impaired. The splitting of coconut oil and of palm kernel oil may be raised to as high as 90 to 91 per cent by carrying out the operation in two stages.

The saponification of the fatty acids which are obtained in this manner, is accomplished, as is well-known, with the aid of sodium carbonate in the place of sodium hydroxide. The difference in price between these two chemicals is also of importance in effecting a saving in cost of manufacture, which is nevertheless almost completely counterbalanced by the costs

* *Seifensieder Zeitung*, 1928.

Kind of fat	Duration of splitting	Splitting effect	Glycerin content of glycerin liquor	Color of the fatty acids	Splitting Agent used
Tallow	13	85	About 15%	Somewhat Yellow	Idrapid
Lard	15.5	85	About 15%	Grayish yellow	Idrapid
Coconut oil (Ceylon)	22.0	91.5	About 15%	Yellowish	Idrapid
Grease	15.5	87.1	About 15%	Brownish gray	Kontakt
Lard	14.0	85.8	About 15%	Grayish yellow	Kontakt
Coconut oil (Ceylon)	21.5	90.7	About 15%	Yellowish	Kontakt

of preliminary purification and splitting. The following tabulation contains some figures on a concrete example.

Fat	Kgs.	Saponification No.	Acid Number	Ester Number	Glycerin in percentage	Glycerin in kilograms
Tallow I	4125	196.24	9.58	186.66	10.21	421
Tallow II	3600	198.30	27.52	170.78	9.34	336
Coconut oil	2700	253.34	4.25	249.09	13.62	367
Soft oil I	750	191.90	7.21	184.69	10.10	75
Soft oil II	600	191.21	11.61	179.60	9.82	88
Sum	11775					1257

The average saponification number is 209.43. Some 11,600 kilograms of spent lye with 7.86 per cent glycerin content were obtained in this saponification. This represented a glycerin yield of 912 kilograms which is 72.5 per cent of the amount theoretically present. The soap was boiled in four kettles and the spent lyes obtained from these kettles were mixed together. The same quantity of fat (11,775 kilograms) was then subjected to splitting. The duration of this operation was eighteen hours and the splitting effect obtained was 88 per cent.

In this operation 7,550 kilograms of glycerin liquor were obtained with a content of 14.36 per cent of the substance. This was equivalent to a yield of 1,085 kilograms of glycerin. This yield figures out to be 86.3 per cent of the theoretical quantity of glycerin present. It was impossible to obtain a higher splitting effect due to the fact that the color of the fatty acids was impaired when this was attempted. The difference in the glycerin yield between the two processes was accordingly 173 kilograms.

The first spent lye, which was obtained in the saponification of these fatty acids, contained a very small percentage of glycerin, so that the evaporation of such a dilute spent lye did not appear to be profitable. It is unfortunate that the figures obtained from the analytical investigation of this spent lye have been lost, but it can, nevertheless, be calculated without any trouble that the glycerin content of the spent lye must have been below three per cent. The soaps that were obtained from these fatty acids had to be boiled in four kettles in order to improve their somewhat dark color as far as possible.

The splitting required 220 kilograms of 60 degrees Be sulfuric acid for purification. The amount of idrapid splitter used was fifty kilograms. The amount of caustic soda required theoretically for saponification of the neutral fats was 1761 kilograms. In the carbonate saponification process, the amount of carbonate theoretically required was 2050 kilograms and 211 kilograms of caustic soda as well. The use of caustic in the carbonate saponification process is necessary in order to saponify the residual fat that remains after carbonate saponification. The average assumed saponification coefficient was 209.5.

The same amount of steam was approximately used in both saponification process, for in both cases the soaps were boiled in four kettles. The difference in the consumption of various materials consisted of the following:—

Fatty Acid Saponification

Sulfuric acid	220 kgs.
Splitter	50 kgs.
Caustic Soda	211 kgs.
Sodium carbonate	2,050 kgs.
Increased glycerin yield	173 kgs.

Neutral Fat Saponification

Caustic Soda	1761 kgs.

When the prices of the chemicals employed are also taken into consideration, then the conclusion is reached that the neutral fat saponification of 10,000 kilograms of fat is about $12.50 more expensive than the fat splitting process and in addition thereto, it is necessary to figure an increased glycerin yield of approximately 150 to 170 kilograms in the splitting process.

THE author would like, at this point, to give some figures on the glycerin content of some spent lyes that he examined.

First spent lye (total fat uniformly saponified)	10.40 percent glycerin
Second spent lye	8.05 percent glycerin
Third spent lye	5.32 percent glycerin
Fourth spent lye (spent from salted-out precipitate)	3.02 percent glycerin
First spent lye (tallow saponified)	10.01 percent glycerin
Second spent lye (coconut oil and soft fat saponified)	10.12 percent glycerin
Third spent lye	7.94 percent glycerin

Fourth spent lye..... 5.32 percent glycerin
Fifth spent lye (from salted-out precipitate) ..... 2.76 percent glycerin

The soaps, which are obtained in this type of saponification process, contain on the average 0.9 to 1.5 percent of glycerin. The quantity of glycerin which is contained in the soap depends, as is self-evident, on the method of saponification and the number of washings to which the soap is subjected. Just how much the separation of the glycerin from the soap is affected by the washings depends principally on the profitableness of the operation, which is conditioned by the price of glycerin on the market. In those plants, which do not themselves work up the spent lyes, the low concentrated liquors are of no moment, for the reason that the prices obtained for them are very low.

ACCORDING to the requirements of one of the best methods that are available for the purification of 10,000 kegs of the glycerin liquor, the following quantities of chemicals are employed: 100 to 150 kilograms of barium carbonate, twenty to thirty kilograms of barium hydroxide, fifteen to thirty kilograms of aluminum sulfate and one to two kilograms of ammonium sulfate. The purification of 10,000 kilograms of spent lye requires 120 to 140 kilograms, thirty to fifty kilograms of aluminum sulfate and four to six kilograms of caustic soda.

It is, nevertheless, also necessary to take into consideration the fact that the glycerin liquors contain twice as much glycerin as the spent lyes, and that due to this fact, twice the quantity of chemicals, required for the purification of 10,000 kilograms of spent lye, must be compared with that required for the purification of the glycerin liquors. When the prices of the chemicals employed are taken into consideration, it is seen that the purification of 10,000 kilograms of glycerin liquor is about two to two and a half dollars more expensive than the purification of 20,000 kilograms of spent lye.

The filtered slime, which is obtained from the purification of 10,000 kilograms of glycerin liquor, amounts to 200 to 250 kilograms on the average. The analysis of this filter mud reveals a content of 1.4 per cent of glycerin on the average. The different values obtained in this analysis varied to a certain extent, as follows: 102 per cent, 1.68 per cent, 2.02 per cent and 0.96 per cent.

The filter mud, which is obtained from the purification of 10,000 kilograms of spent lye, amounts on the average to 200 to 250 kilograms with an average glycerin content of 2.6 per cent. Here again, the individual results of the analysis varied quite markedly and muds were found to contain as high as 3.5 per cent of glycerin.

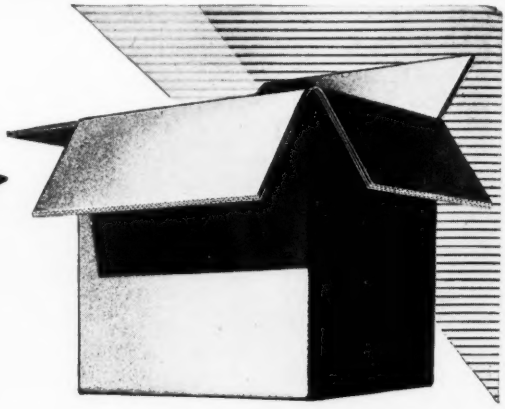
The fact that the glycerin content of the muds, obtained from the purification of spent lyes, is always higher than in the glycerin liquor muds, is a peculiar characteristic of the former mud and varies in accordance with the composition of the mud, for the mud from the spent lye purification is always more slimy, while the mud from the purification of the glycerin liquors consists almost entirely of crystalline barium sulfate. The latter substance can be washed free of glycerin much more easily than the slimy mud.

THE following conclusion may now be derived from the information given above on the preliminary purification process: 200 kilograms of filter mud involve a loss of 2.8 kilograms of glycerin while 200 kilograms of filter mud from the spent liquor involve a loss of 5.2 kilograms of glycerin. When the glycerin content of the solutions are taken into consideration (7.5 per cent the average glycerin content in the spent lyes and 15 per cent the average glycerin content in the glycerin liquor), then the loss of 2.8 kilograms of glycerin in the glycerin liquors must be compared with a loss of 10.4 kilograms in the spent lyes. The difference in loss, amounts to 7.6 kilograms of glycerin, but the cost of purifying the glycerin liquors is from $2 to $2.50 greater, as has been indicated.

We are next concerned with the operation of concentrating the liquors. The most important role is played in this connection by the consumption of coal. According to the experience of the writer, approximately 200 to 225 kilograms of coal are required for evaporating approximately one thousand kilograms of the spent lye in a quadruple effect evaporator. The consumption of coal for the evaporation of the same quantity of glycerin liquor is somewhat less, namely, 150 to 175 kilograms of coal.

This difference is due in the first place to the higher salt content or ash content of the spent lyes, in the second place to the necessary drying of the precipitated salts and in the third place to the higher temperatures, which must be attained in the process of finishing the crude glycerin that is obtained from the spent lyes. This temperature is 110 to 120 degrees C in contradistinction to the temperature of 80 degrees C used in treated saponification glycerin.

(*Continued on Page* 83)



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Soaps from Organic Bases

*The Preparation, Properties and Applications of Soaps made from Fatty Acids and Ethanolamines**

By R. B. Trusler
Industrial Fellow, Mellon Institute

(Continued from February Issue)

THE consistency of any one of the ethanolamine soaps when anhydrous or nearly anhydrous, depends more upon the nature of the fatty acid employed than upon the particular ethanolamine. The oleate of mono-ethanolamine has the consistency of petroleum jelly, while the oleates of di- and tri-ethanolamine are only slightly more viscid. Compared to these, mono-ethanolamine stearate is a hard, wax-like solid.

The soaps prepared from ethanolamines are colored pale yellow to reddish brown, depending upon the purity and color of the fatty acids employed. Generally speaking, all these compounds have an agreeable, soapy odor.

The soaps made from ethanolamines and the higher fatty acids, such as oleic and stearic acids, are soluble in a great variety of organic solvents, which is one of their unusual and outstanding properties. They are dissolved readily by benzene, toluene and similar compounds. Turpentine, alcohols, glycol, glycerine, ketones and many aldehydes are excellent solvents for these soaps. It is surprising to note that even heavy petroleum products, such as lubricating oils and petrolatum, will dissolve considerable amounts of these soaps. In most cases, excepting the heavy oils, the ethanolamine soaps are soluble in the solvents in all proportions, yielding transparent solutions.

Dilute water solutions of the ethanolamine soaps are opalescent to milky, resembling somewhat sodium soaps. The oleate in water froths readily and maintains its soapy character upon standing, but the stearate and, to a less extent, the palmitate slowly revert to the original components, with subsequent partial separation of the fatty acid.

Ethanolamine oleate is capable of taking up a considerable amount of water and remaining jelly-like. The addition of water first causes an increase in the consistency of the soap, this effect continuing until the weight of the water absorbed is about equal to the weight of the soap. Further addition of water renders the soap more plastic and somewhat creamy.

Ethanolamine stearate behaves differently than the oleate upon hydration. Upon the absorption of water, the hard wax-like soap softens, becomes opalescent and reminds one of an agar-agar gel in appearance and consistency.

Applications of Ethanolamine Soaps

The study of the applications of the ethanolamine soaps has chiefly concerned the oleates because of their ease of handling. These oleates are nearly liquid soaps and have comparatively high stability in the presence of water. The two classes of soaps, those from liquid fatty acids and those from solid fatty acids, are not interchangeable in their applications, each one having rather well defined adaptations.

Ethanolamine Oleate as an Emulsifier

Ethanolamine oleate possesses striking emulsifying ability in promoting oil-in-water emulsions. These emulsions can be made in any one of the known technical ways, but a very simple and efficient method may be employed. The amount of ethanolamine oleate required for the emulsification of an oil depends largely upon the nature of the oil involved. Some oils emulsify with ease as compared to others; for example, linseed oil is much more readily emulsified than olive oil, and therefore requires less soap. This same difference has been observed in the case of mineral oils. In a general way, however, it may be said that from 6 to 8 per cent of soap on the basis of the oil used is sufficient for making a good emulsion. The oil to be emulsified is weighed out in a suitable container. About six to eight parts of ethanolamine oleate per hundred parts of oil are dissolved in the latter during warming and stirring. A transparent or nearly transparent solution of soap in oil results, which may be stored for a stock from which emulsions may be prepared as needed. In order to prepare the emulsion, it is only necessary to add the desired amount of water in the following manner. Supposing an emulsion of 80 per cent of olive oil in water is desired. Water

is lowly stirred into the oil containing the dissolved soap. At first the liquid becomes cloudy and somewhat thicker. Further addition of water with stirring will bring about a creamy paste, and when about ten to fifteen parts of water have been added a creamy emulsion results. The balance of the water may be quickly put in. This will produce a heavy, quite permanent emulsion that can be diluted to any desired concentration. In this way a concentrated stock emulsion may be kept on hand from which thinner emulsions can be made when required.

Vegetable oil emulsions of this nature appear to have many applications for non-edible purposes. Excellent emulsions for textile oiling and fiber lubrication have been prepared from olive and palm oils.

Mineral oils may be similarly emulsified. Usually a little more soap is required than for vegetable oils, but the necessary amount can readily be found by experimentation. Mineral oil emulsions of this nature have shown some desirable features for cutting and grinding purposes.

Owing to the solubility of the ethanolamine soaps in petroleum products, some very interesting special applications have been tried on an experimental scale. It has been found that small amounts, in the proximity of 0.3 to 1 per cent of these soaps, dissolved in lubricating oils, increase their viscosity to a great extent. Oils are thus rendered non-running and become suitable for pressure oiling systems (not for internal-combustion engines) and as cup and gear greases.

A convenient and efficient means for removing oil and grease from articles and clothing can be had by dissolving about 10 to 20 per cent of the oleate in a convenient solvent, such as naphtha, carbon tetrachloride, and the like. A solution such as this has been successfully used in cleaning greasy walls, woodwork mechanisms, automobile bodies, and parts covered with grease and oil by brushing or rubbing it over the surfaces to be cleaned. After the solvent has evaporated, the grease and oil can be often completely removed by washing with water, because the grime is removed as an emulsion as the soap is taken up by the water. Ethanolamine oleate in carbon tetrachloride (or ethylene dichloride) will be found useful in removing grease spots from garments. Before the fabric is wetted, the grease spot is moistened with the ethanolamine soap—carbon tetrachloride solution. This will penetrate grease, fresh paint and the like; and after the solvent has evaporated, the application of water with a little rubbing will emulsify the oil content of the stain so that it can be removed.

By far the most important application of ethanolamine oleate seems to be its adaptability for dry-cleaning fabrics and wearing apparel. While this study is still in the experimental stage, sufficient satisfactory observations have been made over a period of several months to warrant the prediction that the soap will be technically valuable. The fact that ethanolamine oleate is readily soluble in naphtha over a wide range of concentrations is a feature that makes it especially important, since no special formulas are required in preparing a dry-cleaning soap and it is not necessary to employ an excess of the fatty acid to keep the soap in solution as is the practise for sodium, potassium, and ammonium soap compositions generally used for dry-cleaning purposes. This implies a corresponding decrease in the development of rancid odors in garments after cleaning, since there is no excess fatty acid to be rinsed out. The soap remains in solution in the solvent in the presence of small amounts of moisture which is a desirable feature for dry-cleaning soaps[5]. For cleaning felt and wool hats where the soap in naphtha is applied particularly good results have been obtained. The naphtha solution of ethanolamine oleate exhibits the striking characteristic of foaming or frothing much like water solutions of sodium soaps, though, of course, to a less extent.

Other Suggested Uses for Ethanolamine Soaps.—Inasmuch as ethanolamine is a surface tension depressant of real merit, it is possible that ethanolamine oleate can be employed as a wetting out agent, or even as a surface tension depressant for special needs.

Experience has shown that ethanolamine has unusual fiber penetrating power, especially in water solution. In order to render this penetrating action available, so that the compound may be used as an introfier, or carrier, in non-hydrous, oily systems, it is suggested that the oil-soluble ethanolamine oleate be used for this purpose.

The excellent emulsifying ability of ethanolamine oleate has been described. It is suggested that this feature be applied for the preparation of concentrated emulsions for veterinary purposes, such as cattle sprays, and poultry, house disinfectants and insecticides. Experience has thus far shown ethanolamine soap to be non-toxic and non-irritating for external use.

Water suspensions of clays and of other finely divided minerals have been found to be stabilized by the addition of small amounts of ethanolamine oleate. Ceramic uses are there-

5 Hatfield & Alliott. J. Soc. Dyers Colorists, 44, 170 (1928).

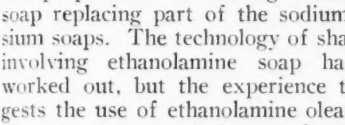
fore suggested. A similar application might be made in the case of oil paints. It may be found that a small amount of the anhydrous soap dissolved in the oil would render a more permanent suspension of the pigment, or perhaps aid in preventing the pigments from forming a dense layer in the bottom of the container as they settle out.

The observation of the penetrating and softening action of ethanolamine upon hair led to the preparation of shaving creams with this soap replacing part of the sodium and potassium soaps. The technology of shaving creams involving ethanolamine soap has not been worked out, but the experience to date suggests the use of ethanolamine oleate in creams that are not excessively superfatted.

Other Alkylamine Soaps

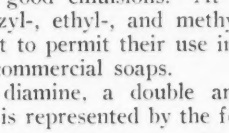
Simple alkylamines, such as the methyl and ethylamines and benzylamine, combined with fatty acids to form soaps[6]. Ethyl and methylamine soaps have properties nearly identical with the corresponding ammonium soaps.

Benzylamine readily forms liquid to viscous soaps with the fatty acids. Benzylamine oleate

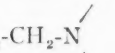


is a pale yellow soap with a viscosity like glycerin. It has a peculiar but agreeable odor, somewhat resembling nasturtium. This soap is peculiar in that it appears to be as readily soluble in oils and organic solvents as it is in water. It foams in water and allows the preparation of good emulsions. At present the cost of benzyl-, ethyl-, and methyl-amines is far too great to permit their use in the manufacture of commercial soaps.

Ethylene diamine, a double amine whose composition is represented by the formula,



has both commercial and technical possibilities. The synthesis of the compound has been accomplished by an improved process which will permit commercialization when uses are found for it. As the formula shows, it can combine with one or two fatty acid molecules. One amino group is decidedly basic; but after combining with a fatty acid to give a mono-basic



soap of the type $NH_2.CH_2CH_2NH_2$-O-C-R, the second amino group forms stable compounds only with the stronger fatty acids.

The mono-oleate and mono-stearate of ethylene-diamine are strongly basic in water solution and froth readily. They are soluble in alcohol, but poorly soluble in petroleum products and in benzene and its homologues. A highly basic, non-metallic soap, such as either the oleate or stearate of ethylene-diamine, is suggestive of desirable technical applications. It should be mentioned that the mono-stearate of ethylene-diamine is crystalline and flakey, while the two oleates are viscous liquids.

Soaps from Arylamines

Arylamines in general combine with fatty acids to form soaps. This comparatively new field is yielding products of unusual interest and importance. Attention should be called to the soaps of the cinchona alkaloids[7], which are commercially known as "Konate." These cinchona soaps, which are soluble in petroleum distillates and in various other organic solvents, have been found to be most efficacious agents for mothproofing fabrics and furs. The study of many arylamine soaps, their nature and application, is now being undertaken by the writer and the results will be reported later on.

Resumé

Soaps have been made from fatty acids and organic bases containing nitrogen. The soap-forming bases are alkyl substituted amines and aryl substituted amines. In this paper alkylamines have been especially considered. Among them the hydroxy-alkylamines known as the ethanolamines have outstanding importance.

Ethanolamine soaps have diversified properties which may later bring them into technical importance. Among the prospective uses are the following:

(1) They are excellent emulsifiers for vegetable, animal and mineral oils.

(2) They are thickeners for lubricating oils.

(3) Incorporated in special compositions, they have detergent and cleaning utility.

(4) The oleates are efficient dry-cleaning soaps, due to their solubility in organic solvents and to their specific detergent action.

(5) Their great solubility in almost all liquids will undoubtedly eventuate in other industrial applications.

6 Gibbs, J. A. C. S. 28, 1410 (1906).
7 Jackson and Wassell, Ind. Eng. Chem., 19, 1175 (1927).

E. H. Killheffer, for ten years vice-president of Newport Chemical Works, Passaic, N. J., was recently elected president of the company to succeed A. A. Schlessinger who resigned.

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Philippine Products, Especially Copra and Coconut Oil, Under Severe Fire of Farm Interests—Farm Spokesman Vigorously Opposes Denaturation and Free Entry of Non-Edible Oils —Copra Crushers and Margarin Assn. Fight New Rates—Only Two Per Cent of American Oils in Soaps, Says Barnes.

IN hearings held February 27, and 28 before the Ways and Means Committee at Washington, the bitter fight for and against the proposed high blanket tariff on all oils, fats, and oil bearing materials was resumed. Previously the battle on Philippine products, especially coconut oil and copra, had been staged before the same Committee. The farm interests asked for a duty of two cents per pound on all imported copra, including that from the Philippines, and also for a duty of 45 per cent on all extracted oils and 40 per cent on oil bearing materials of all types. These proposed duties were vigorously opposed by soap and margarin interests and by coconut crushers and refiners. The line up on each side was composed of agricultural and dairy interests and some fish oil producers in favor of the tariff and manufacturing groups against it.

Charles W. Holman, secretary of the National Cooperative Milk Producers Association, presented the case of the farm and allied interests. He urged the high duties on all oils and especially on coconut oil and copra. He opposed very strongly the proposal of soap makers that non-edible oils be allowed to come in under bond or denatured. He stated that the Philippine oil crushing industry had been unnaturally developed by the duty of 2c a pound on coconut oil being applied to other countries, while Philippine coconut oil has been permitted to come into the country free of duty. He added that such coconut oil as is used in the United States should come in as the raw product copra, and that Pacific Coast crushers should be allowed a manufacturer's differential to permit them to go ahead with their business operations. He expressed the belief that a duty of 45 per cent on the extracted oil and 40 per cent on the oil content of the copra was a fair differential.

He also predicted that exports of coconut oil and copra from the Philippines from present plantings will exceed 1,000,000,000 pounds of oil by the end of the year 1930. He held that an imposition of tariff on both the oil and the copra is essential to the successful operation of a tariff on the whole oils and fats structure.

These views were supported by several cottonseed crushers present and by Congressman Mansfield of Texas. Ed Woodhall of Dallas, Tex., for the cottonseed crushers stated that the higher duties on copra would mean an increase of $50,000,000 per year income to the cotton oil industry. S. W. Wilbur of Paris, Texas, also a cotton oil crusher suggested a return to the Philippines in a lump all moneys collected under the tariff on copra and coconut oil.

Several copra crushers opposed the duties on Philippine copra, stating that between the demands of the farm element for a high tariff wall and those of the soap industry for no duty at all, that the copra industry looked as if it were about to die. J. L. Dirick of the Oil Seeds Crushing Corp., Baltimore; Duval Moore of the El Dorado Oil Works, San Francisco; and J. W. Barber of the Portland Vegetable Oil Mills, Portland, Ore., all copra crushers, spoke against the tariff.

A serious effect upon the economic development of the Islands would follow the imposition of tariff rates or restrictions, according to Newton W. Gilbert of the Philippine-American Chamber of Commerce. He asserted that the United States Government rather, was pledged to aid in this development, and that he did not agree with those who have contended that the Islands should be treated as a foreign territory. Pedro Guevara, resident commissioner from the Philippines; Newton W. Gilbert, New York, representing the Philippine-American Chamber of Commerce; John W. Switzer, New York City, representing commercial bodies of the Islands; General Frank W. McIntyre, Philippine Trade Commissioner and spokesman at the hearings for the Philippine Government, and others argued against either limiting duty free importations or imposing duties on imports from the islands.

B. S. Pearsall, president of the Institute of Margarine Manufacturers, opposed the duties on coconut oil and copra and stated that margarines did not compete with butter or other farm products any more than a cheap suit of clothes competed with a high-grade hand-tailored suit. He said that the only effect on

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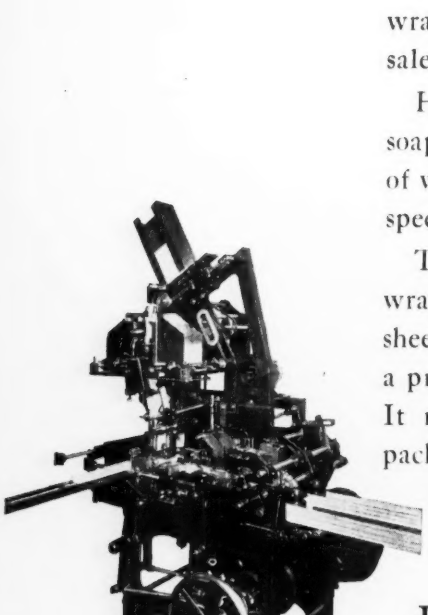

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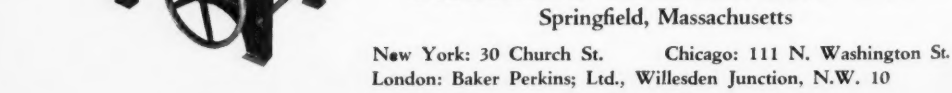

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the margarin industry would be that the increase in cost would be passed on directly to the consumer without any benefit to the farmer. He stated that margarin taxed and restricted by innumerable laws already should not be subjected to this additional restriction of no value to those it was suuposed to help.

F. M. BARNES of the Procter & Gamble Co., speaking for the American Laundry Soap Manufacturers Association, stated that each year the production of American oils was a billion pounds short in supplying the needs of the country and that only two per cent of domestic vegetable oils go into soap. Cottonseed and other American vegetable oils are mostly used in food products and have been perfected to the point where they are too valuable to go into the soap kettle, he said. A box of soap now selling at $4.00, would have to sell at $6.00 under the new tariff costs, he stated. If cotton oil production were increased to make up for the coconut oil shut out by the tariff, he said, it would mean trouble for the cotton farmer as he is already suffering from an overproduction of cotton linters.

John B. Gordon, of the Bureau of Raw Materials for the American Vegetable Oils and Fats Industries, also brought out the fact that oils suitable for lard compounds and edible uses are not interchangeable with oils for the soap kettle. He said that the American farmer is not producing oils suitable for soap manufacture and that the soap maker must turn to foreign sources for the right oils at at the right prices.

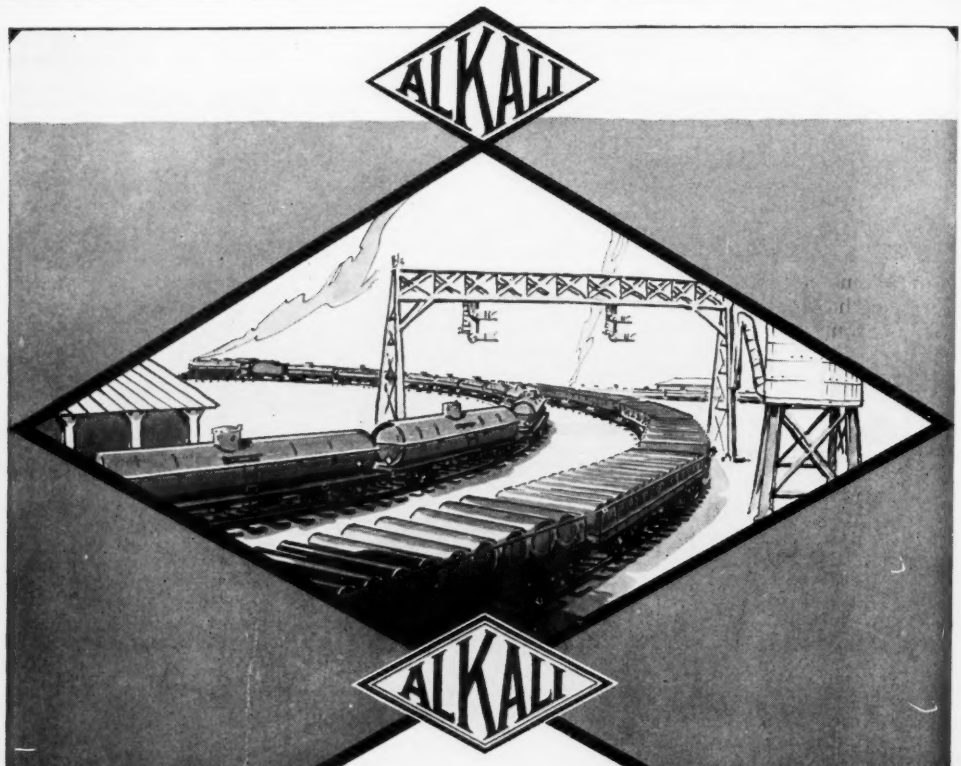
Even cod liver oil came in for its share of attention in the proposed sweeping 45 per cent tariff. A representative of the United States Fisheries Association urged that the duty on cod liver oil was necessary to foster a growing American cod oil industry. This stand was backed by the Congressional representative from Alaska who urged a development of the Alaskan cod banks through this tariff. The cod oil duty was opposed by James C. Lewis, of E. R. Squibb & Sons, and C. P. Gulick, of the National Oil Products Co. They both pointed out that the potential output of the American industry was not over twenty per cent of domestic needs, and that at present it was only six per cent of American consumption. The United States already uses three-fourths of the world's production of cod liver oil.

The case of palm oil was taken up chiefly by the tin plate industry with E. R. Crawford, president of the McKeesport Tin Plate Co., McKeesport, Pa., speaking against the proposed duty. He suggested the importation under bond and remission of duties when used in the manufacture of tin plate.

IN a hearing before the Ways and Means Committee on Feb. 22, the following soap makers appeared: F. M. Barnes of Procter & Gamble Co.; Dr. J. Goldbaum of Fels & Co.; Daniel McIver of Original Bradford Soap Co.; William H. Bertolet, Jr., of Laurel Soap Mfg. Co; William Newton, Jr., of Haskins Bros. & Co.

At the same hearing, Paul C. Trimble, managing director of the National Association of Dyers and Cleaners, spoke and told how the sharp advance in soap prices as a result of the tariff would effect his industry. He said in part: "Though it is generally known to the layman the part that soap plays in the laundry business, it is perhaps not so generally known that the consumption of soap in dry-cleaning plants is also exceptionally heavy. I am not able to state to you the number of dollars and cents paid for soap in dry-cleaning plants, but it will run into many millions of dollars—probably $10,000,000 per annum. It is impossible for dry-cleaners to cleanse a garment properly without the use of soaps. Dry solvents, such as petroleum distillate, carbon tetrachloride, benzol, and camphene, all remove superficial soil without soap, but there is no good plant in the United States which does not use benzine-soluble soap in its processes and in large quantities.

There is another fact in this connection which I would like to place before you. Dry-cleaners use considerable quantities of water-soluble soap similar to that used in power laundries but of even better quality—because of the damage that free alkali does to certain types of garments—than the laundry owners. Ninety-five per cent of all of the rugs which the American housewife sends to be cleaned in our establishments—this volume will run into many millions per years—are cleaned with laundry soap and water only. The other 5 per cent are cleaned with benzine soap and a dry solvent. Stains, such as sugar stains—in fact, any stubborn stain which is water borne—must be taken out of silk and woolen garments by the same medium which carries them in—that is, we use a local application of soap and water, then soap aline in the case of certain refractory stains. One of the new types of synthetic silks, celanese, requires the use of soap in the spotting operation; and we are, therefore, large consumers—in the several thousand plants—of laundry soap, as well as



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Benzine soap is made from a tallow base. We have not found it practical to use coconut oil or other edible or non-edible oils in the manufacture of soap for use with dry solvents. But the cost of the domestic soap bases used in our industry will be directly affected by the duty on the imported soap-making materials.

The cost of dry cleaning during the last few years has been reduced steadily in spite of increased costs in selling and delivery. A part of this reduction has been effected by volume production and another part by scientific research, which has produced less volatile solvents and more effective and, therefore, less expensive soaps and detergents. As a result, therefore, dry cleaning has achieved much wider consumer acceptance and its place in personal sanitation is almost equal to that occupied by the laundry industry. Each gentleman present here is using the dry-cleaning service many times more than he did 10 years ago. It is even safe to say that the American housewife's bills for dry cleaning, in many cases, approximate their laundry costs. A tax on soap-making materials will affect our costs equally with the laundry and it will be readily seen that a 45 per cent increase on materials which average, in wholesale selling price, 20 cents per pound, will much more seriously and adversely affect dry cleaning than even the laundry service of the American public."

Textile Soap Ass'n. Against Tariff

At a meeting of the Textile Soap and Oil Manufacturers Association, held late last month in New York, that organization made up mostly of manufacturers of textile soaps and specialities, went on record as strongly opposed to the proposed tariff of 45 per cent on oils and fats. The association is raising a fund to fight the tariff in Washington. John B. Gordon of the Bureau of Raw Materials for the Oil and Fat Industries addressed the meeting and urged the members to join with his group in opposing the higher rates. Joseph W. Leberman of the Enterprise Mill Soap Works, treasurer of the Association, is collecting the fund. William H. Bertolet, Jr., of the Laurel Soap Manufacturing Co., is chairman of the Association.

Fred J. Mingst of Pfaltz & Bauer, Inc., New York, was recently chosen assistant treasurer of that company.

Glycerin Freight Rates Cut

Freight rates on glycerin have recently been reduced in two cases by New York Central Railroad. Carload shipments of glycerin, other than crude, in barrels, from New York City and Brooklyn points to Rensselaer, N. Y., were reduced to $22.5c per cwt. on February 1. A similar reduction to 19c per cwt. on shipments to Schenectady, N. Y., was made, and both reductions have been approved by the Public Service Commission.

Trisodium Phosphate Tariff

Briefs favoring and opposing an increased tariff on trisodium phosphate were recently filed with United States Tariff Commission. Domestic producers ask an increase from the present duty of ½c lb. to ¾c lb., pointing out that imports from foreign countries have depressed American prices to a point where the business is no longer profitable. The importers contend that the imports of trisodium phosphate are only 1% of United States consumption, and that this importation is necessary.

Court To Decide Werk Control

A dispute involving the legality of a recent election of officers of The M. Werk Co., Cincinnati soap manufacturers, has been taken to court by Emil Werk, former president of the company and Edwin C. Price, chosen president in the disputed election. Both sides have agreed not to assume office until such time as the election is decided by the courts. The present officers of the company, which the other side states were elected at a non-quorum meeting of stockholders, are as follows: E. C. Price, president; H. Dock, vice-president; W. W. Oskamp, secretary and treasurer; C. J. Penn, assistant secretary and treasurer. The directors are E. C. Price, H. Dock, W. W. Oskamp, Louis Werk, G. W. Eisenlohr. A group of minority stockholders are said to be attempting to disqualify the election, according to the above group.

Frank Bauer, president of Pfaltz & Bauer, Inc., New York, sailed March 1 for a two months' trip through Europe combining business and pleasure. He will visit England, France, Germany and Italy.

Felton Chemical Co., Inc., 599 Johnson Ave., Brooklyn, recently issued a revised wholesale price list for raw materials for perfumers, soap makers and flavoring extract manufacturers.

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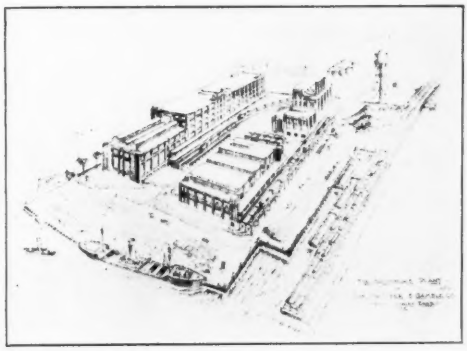
New P. & G. Baltimore Plant

Executives of the Procter & Gamble Co. have confirmed the announcement made some time ago of the construction of a complete manufacturing unit at Baltimore, Md. The new plant, which will be one of the largest



soap manufacturing centers in the country, will, when completed, be the eighth in a chain of factories actively operated by the Procter & Gamble Co., whose present units are located at Ivorydale, Ohio; Port Ivory, Staten Island, N. Y.; Kansas City, Mo.; Macon, Ga.; Dallas, Texas; St. Louis, Mo.; and Hamilton, Ontario.

Baltimore was chosen as the site of this new factory because of "its stragetic location as a manufacturing and distributing center for the East and Southeast." All of the Company's name brands of soap will be produced at the new plant. Employees of the new plant will benefit by the various labor policies practiced by the Procter & Gamble Company, which include guaranteed employment, the profit-sharing plan, the pension and benefit plan, and the Employees' Conference Committee work. The plant will consist of five main buildings, covering eight and one-half acres and will cost approximately $4,000,000. The construction work will begin immediately.

The Japanese soap industry depends mainly on hydrogenated oils, artificial ox fat, whale, fish and soya bean oils, for its raw materials, two-thirds of all the soap raw materials being of this type. The Japanese have apparently decided to concentrate on production of fish and soya bean oils, leaving cottonseed oil to United States and linseed oil to Great Britain. The annual Japanese production of whale oil is valued at 3,000,000 to 4,000,000 yen, half of which is exported. — *British Soap Manufacturer*, Jan., 1929.

African & Eastern — Niger to Merge

African & Eastern Trading Co. and the Niger Co., the two largest palm oil factors in the world, will soon be merged into one organization. Negotiations looking toward accomplishing this combination have been under way for some time and only the final details remain to be worked out. The New York offices of the American subsidiaries, the Niger Co. being under the management of J. H. Redding and R. G. Morris being in charge of the African & Eastern branch, have not been able to add anything to the above announcement but expect that additional information will be available before the end of the month. In addition to their palm oil activities in Africa, Niger and African & Eastern handle a multitude of other products, both for export and import. They are the two largest African trading companies, having been built up for many years past through the absorption of many smaller trading organizations.

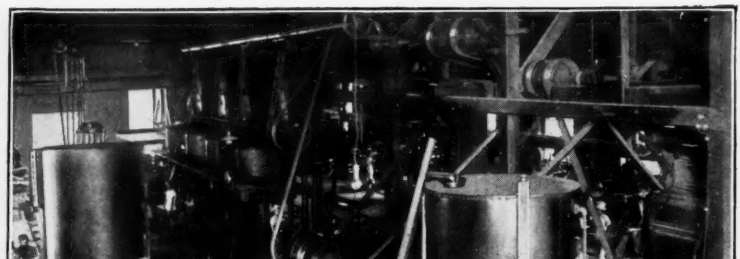
Purdy and Stevens Divide

Stevens Soap Corp., Brooklyn, N. Y., has been formed by H. J. Stevens to take over the manufacturing and wholesale end of the business of Purdy & Stevens which company has for many years been making soap powders, scouring and polishing powders and soaps, and allied products. W. H. Purdy, also formerly of Purdy & Stevens, will take over the retail and institutional end of the business and operate it as a separate company. Both organizations will for the present be located at the old Purdy & Stevens plant, 200 to 216 Sullivan St., Brooklyn. Further announcements will be made later.

P. & G. Issue New Stock

Procter & Gamble Co. are issuing $12,500,000 of 5% preferred stock, par $100, to reimburse the treasury for the redemption of $3,160,100 of 6% company stock which was called at $110.25 a share, to be retired March 28. The new stock will be callable until Feb. 1, 1939, at $115 a share, and at $110 at share after that time. Application has been made to list the new stock on the New York and Cincinnati exchanges. After the issue is made Procter & Gamble will have outstanding $10,900,000 of 4½% 20 year debentures, $2,250,000 of 8% preferred stock, $25,000,000 of common stock and the $12,500,000 of 5% preferred.

Harry Zimmer of the St. Louis branch of James S. Kirk & Co., spent the latter part of February at the Chicago headquarters.



Expellers in Manila Plant

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These pains are taken so that the user may be sure of a coconut oil that is satisfactory in every way. It will pay you to buy your coconut oils from Spencer Kellogg and Sons Sales Corp'n.

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Manila Raw
Crystalite
*Silver Seal Cochin
Edible
Hydrogenated

*Recommended wherever a bleached and neutralized oil of uniform quality is demanded.

Editor's Correspondence

Replies on Castile Soap

The Editor:

Your editorial in regard to the Castile Soap case in the January issue of *Soap*, while true in part,—referring to the dilly-dallying of the commission,—shows a woeful lack of general knowledge of the "castile soap-buying" public.

The undersigned is a registered pharmacist; sold castile soap for fifteen years before leaving the drug store for the industrial laboratory and should be in a position to know whether the public knows or cares what goes into the makeup of castile soap.

It was invariably my experience that whenever we offered a so-called castile soap which was not a pure olive oil soap, the customer entered a complaint the next time we saw him because of the fact that most of the castile soap sold at retail is used in the bathing of babies, invalids and others with tender skins, under the direction and advice of the attending physicians and nurses who have in mind the castile soap of the U. S. Pharmacopea, and any other than an olive oil soap will cause an irritation of the skin and the consequent "kick" to the seller.

I think that you will agree with me that there must be substantial reasons for the naming of these substitute products, castile soap, and you should also wonder the same as I do, why—if what you say is true, that the name castile does not carry a certain significance—why do these several manufacturers insist on calling their product castile soap—why not invent a new name for the type—why start a controversy that could easily be avoided by a little exercise of common sense?

If I were producing a product which was superior to any similar product on the market, I certainly would avoid the use of a name which would in any way link up my product with these inferior articles, but yet the testimonies of all the parties interested in the manufacture of spurious castile soap claim that their particular blend is the equal or superior in quality to 100% olive oil soap. I may be dumb, but I don't quite comprehend their viewpoint.

A short while ago you berated a certain small manufacturer for using the name of a well advertised article on his product, which was absolutely out of the field of the product of the large manufacturer. You went on to state

(*Continued on Page* 71)

Stearine Dutiable at 25%

Fatty acid products which do not meet the government requirements for classification as stearic acid, will be dutiable at 25% ad valorem, instead of at 1½c lb., the stearic acid rate, according to a recent decision by United States Court of Customs Appeals in an appeal made by Lamont Corliss & Co., and Strohmeyer & Arpe Co. In making this decision the higher court reaffirmed the decision of a lower court that stearic acid is generally considered to be a fatty acid made entirely of animal fats, with a melting point of 128° to 135° and an iodine value of 3 to 8. The imported material in question, sometimes known as stearine, stearol, and Dutch stearic acid, was made from palm oil, cocoa butter, fatty acids, Chinese vegetable tallow, bone fat, beef tallow, mutton tallow and hog fat, had a melting point ranging from 119.7° to 126.4° and an iodine value from 10.3 to 27.2.

The importers declared that the commodity was often dealt in as stearic acid, and had been accepted as such before the passing of the tariff act of 1922. Government witnesses stated in reply that the imported material would not be generally accepted as delivery of stearic acid, and that it was not suitable for the purposes to which stearic acid is usually put in the manufacture of candles. The court admitted that the imported product might have been accepted as stearic acid in some cases, but made an adverse decision in view of the testimony that the material would not be accepted generally as stearic acid.

British Soap Exports Larger

British Soap exports gained again in December, 1928, and totaled 137,382 cwts., with a value of £348,020. This figure was larger than the November total of 128,036 cwts., valued at £299,037, and also exceeded the 1927 monthly average of 135,376 cwts., valued at £318,730. Bar soap to the amount of 122,464 cwts., worth £254,206, and 7,763 cwts. of toilet soap, valued at £76,845, were shipped out of the country, all the figures representing increases over November. Soap imports were slightly smaller in December, amounting to 22,508 cwts., with a value of £54,728, somewhat under the 1927 monthly average of 26,270 cwts., valued at £59,098. Imports of hard bar soap amounted to 10,042 cwts., valued at £22,800, a decrease from the figures of the previous month. Imports of toilet soap were larger, totaling 5,183 cwts., at a price of £22,213.

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PERSONAL and IMPERSONAL

Gold Dust Corp. recently announced that more than 51% of the capital stock of Standard Milling Co. had been deposited with Equitable Trust Co., as assenting to the offering of Jan. 8, under which Gold Dust offered to exchange its shares for those of Standard Milling. This makes it certain that the exchange will take place.

A. M. Craigie and J. H. Botz resigned recently as directors of Colgate-Palmolive-Peet Co., reducing the board from 22 to 20 members. All of the other directors were re-elected.

Colgate-Palmolive-Peet team and that of E. R. Squibb & Sons were tied for third place in the tournament of the Wholesale Drug Trade Bowling Association of New York as of March 1. Roessler & Hasslacher Chemical Co. was first and Graselli Chemical second on that date.

James S. Kirk & Co., Chicago, has filed with the Circuit Court of Appeals for the Seventh District at Chicago, a petition to review and set aside the order of the Federal Trade Commission in the famous "castile soap case", which restricts the fatty composition of castile soap to olive oil.

E. Schotte, formerly chief chemist for the Iowa Soap Co., Burlington, Iowa, recently returned from the Netherlands, having become associated with the Shell Petroleum Co. in Amsterdam. He is now connected with the St. Louis plant of this company.

Luckel King Co., cake soap manufacturers, are reported to be getting out a new bond issue to finance improvements in their plant. The present plant will be enlarged and new machinery will be installed.

"Lever Bros., Ltd., do *not* plan to build a soap factory in Java," said an official of the company in a letter to *The Soap Trade Review*. This rumor which has been current for some time seems to be quieted by the statement of Lever Bros.

Mt. Hood Soap Co., report themselves sold up and behind on their orders, according to Geo. B. Smith, of Desert Wonder Soap Co., Portland, Ore. Mr. Smith also states that Portland Vegetable Oil Co. is grinding copra on a 24-hour shift.

A. George Stern, for the past three years with Colgate-Palmolive-Peet Co. at the Jersey City plant, engaged in process development work, severed his connection with the company on March 1.

Cleanliness Institute announced that it has added a Health Department to its activities under the direction of Dr. W. W. Peter. The department has been formed to cooperate with health agencies, both public and private, in the relation of cleanliness to health.

The Uno Manufacturing Co., of 501 West Division Street, Chicago, has altered it name to the Barnett Chemical Co. The address remains the same.

Bon Ami Co. reported a profit of $1,283,860 for the year ended December 31, 1928, as compared with $1,157,503 for 1927.

National Soap and Perfume Co. recently completed the removal of plant and offices to 1160 Chatham Place.

Procter & Gamble Co. common stock recently rose to 375 on the strength of continued reports that a large block of stock will be sold to Goldman Sachs and National City Bank, with the understanding that the shares will be split five for one. It is also reported that the stock will be listed on New York Stock Exchange, and that Goldman Sachs will arrange for offering the new shares to the public.

Dr. Ernst Gunther, technical director of Fritzsche Bros., Inc., New York, gave a lecture on "The Production of Essential Oils" on March 6th at Havemeyer Hall, Columbia University. The lecture was accompanied by motion pictures which have been taken by Dr. Gunther during a two year stay in France, Spain and Germany.

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Chicago Perfumery, Soap and Extract Association has shown a large gain, during the last two months, in the numerical attendance at the regular semi-monthly meetings. Continuing its newly established policy of providing frequent entertainment features, the committee, headed by Harold E. Lancaster, secured the services of Oscar Helstrom, celebrated as "Europe's Greatest Mental Telepathist", for the meeting of March 6th. Mr Lancaster promises to announce soon the date of the Annual Spring Dinner Dance, which is scheduled for some time in April. The Association recently admitted to membership the American Solvents & Chemical Corporation represented by E. A. Troxell.

Fels & Company recently announced the resignation of J. R. Collingwood, who has been the purchasing agent of the company for the past twenty-seven years. Mr. Collingwood has been known to the trade through his interest in tariff legislation.

Larkin Co., Buffalo, recently announced the election of three new vice-presidents, James C. Larkin, James E. Wilson and Theodore C. Jewett. Mr. Larkin, who was formerly secretary and assistant treasurer of the company, will now be in charge of sales and chain stores in Buffalo.

Bristol-Myers Co. and its subsidiary, F. F. Ingram Co. earned $1,609,191 during 1928, after deducting federal taxes, this amount being equivalent to $7.95 a share on the 202,210 shares of common stock outstanding.

Thomas B. Fox, credit manager of Procter & Gamble Co., and connected with the company for the past twenty years, recently resigned to enter the insurance business.

At the Naval Stores Conference held recently in Pensacola, Fla., Joseph E. Lockwood, of Hercules Powder So., Wilmington, was chosen general chairman of the next get-together which will be held in Jacksonville, Fla., during 1930. Mr. Lockwood is director of sales of the naval stores division of Hercules Powder Co.

Schimmel & Co., Miltitz, Germany, represented in United States and Canada by Fritzsche Bros., Inc., New York, recently bought the business of Anton Deppe, Soehne, Hamburg, and plan to operate the firm as a branch. F. E. Watermeyer, head of Fritzsche Bros., is now in France visiting the factory at Grasse, and will confer with Schimmel & Co. before returning home.

Procter & Gamble Co. recently declared a regular quarterly dividend of $1.50 on its 6% preferred stock, payable March 15. Preferred stock to the amount of $3,160,100, has been called for redemption by the company at $110.25 a share, to be retired March 28.

The profits of Forhan Co., tooth paste manufacturers, totaled $1,006,257 during 1928, after deduction of federal taxes. This is equivalent to $3.65 a share on the 150,000 shares of no-par class A stock, and $3.05 a share on the 150,000 shares of no-par common stock, and represents a 33% increase over the 1927 earnings.

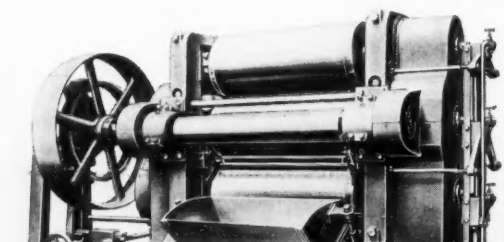
Spencer Kellogg & Sons recently arranged to have their 600,000 shares of no-par common stock admitted to trading privileges on New York Stock Exchange.

Vadsco Sales Co., formed through the merging of Vivaudou Co., A. D. S., Kny-Scheerer and Delettrez, expects to effect savings amounting to $886,000 during 1929. If the present rate of earnings is continued, the dividends on the preferred stock will be earned by the end of March, it is said.

Davis, Kitchen (Australia), Ltd., will build a new soap factory in Lidcombe, New South Wales, according to recently approved plans.

Meon Heads Oil Trades Assn.

Philip C. Meon, of Borne Scrymser Co., New York oil house, was elected president of the Oil Trades Association of New York at the organization's annual meeting held March 12 at the Waldorf-Astoria. A. A. Hoffman, American Oil & Supply Co., Newark, was named vice president and George Surand, Chelsea Oil & Supply Co., treasurer, the latter succeeding Mr. Meon. Joseph C. Smith, of Smith-Weihman Co., New York, olive oil foots importers, was again named secretary, a position which Mr. Smith has held since the association was started several years ago. In addition to the officers, the following were elected to the board of directors: Albert J. Squier, Thomas J. Skidmore, retiring president, R. E. E. Hood, William L. Koburger, Clifford T. Weihman, William S. Williams and Edwin Stern.



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Say you saw it in SOAP!

SOAP CHEMISTS' SECTION

(Official Publication, Soap Section, American Oil Chemists' Society)

Are You a Member?

The Soap Section of the American Chemists' Society is the only technical organization of Soap Chemists in this country. A most elaborate program has been planned by the Section. A very active committee is working on a standard method of determining the relative detergency of soaps; standard samples of glycerin and soap have been prepared for distribution to the members of the Section for analysis. This check analysis work was inaugurated to bring about closer agreement between laboratories, buyers and sellers. At present the Section is only composed of about 15 members, a very small percentage of the soap chemists in this country. Are you not anxious to assist in this work, not for the other fellows' benefit, but for yours? The objects of the Section deserve the active support of every soap chemist in this country. Write to A. K. Church, Chief Chemist of Lever Bros., Cambridge, Mass., W. A. Peterson, Kirkman & Son, Brooklyn, N. Y., or J. C. P. Helm, 705 Tchoupitoulas St., New Orleans, La., and they will tell you how you can become identified with this work. We invite your participation.

A. W. Putland,
President, A.O.C.S.

Report on Activities

The Soap Section Committee has made considerable progress during the past month on the preparation of the standard samples of crude glycerine and soap. The preparation of these samples is now completed. Portions of both samples have been distributed among the members of the Committee, and the actual work of standardizing them is now under way.

From the keen interest shown by the members of the Committee in their discussions of the problem, it is evident that these men are all interested in creating a sample which will be a real standard.

Recent correspondence from additional men expressing their desire to participate in the standardizations shows an increasing interest which is very encouraging to the Committee. It is too early to predict just when this task will be completed, as there are about 12 laboratories cooperating in this work, which must necessarily be done at their convenience. We may be assured that the Committee will expedite matters as much as possible consistent with the care and accuracy which must of course, be paramount.

William A. Peterson,
Secretary, Soap Section.

Standard Samples Now Ready

THE *Soap Section* of The American Oil Chemists' Society has now prepared and distributed to members of the committee a standard sample of crude glycerin and a standard sample of soap. The committee is working on these samples. The results of the analyses willl be sent to the Secretary of the *Soap Section.* Any member of The American Oil Chemists' Society may secure these standard samples of glycerin and soap without cost, as long as the supply lasts, by agreeing to report their results.

Those interested in soap or glycerin, not members of the A. O. C. S., desiring to do cooperative work on one or both of these standard samples may participate in this work by becoming members of the A. O. C. S. Application should be made to J. C. P. Helm, Secretary, The American Oil Chemists' Society, 705 Tchoupitoulas St., New Orleans, La.; or to Wm. A. Peterson, Secretary, *Soap Section*, A. O. C. S., c/o Kirkman & Son, 215 Water St., Brooklyn, N. Y. Results of the analyses of these standard samples should be reported to Mr. Peterson. The names of the chemists or laboratories sending in their results will be held in confidence and the results when published given only under numbers. The glycerin sample is being tested in accordance with the International Acetin Method and the soap sample in accordance with the standard methods of the American Chemical Society. A. K. Church

Chairman, Soap Section

French patent 641,584, granted to Hertog and Hamon, Aug. 7, 1928, applies to a process for inlaying wax, stearine, fat, tallow, paraffin, etc., in soap cakes, in such a way as to form words or designs.

Soap Perfume Oils

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ON PRODUCTS AND PROCESSES

The adsorptiveness of alkali soaps and similar substances toward organic solvents is increased and their sensitiveness toward lime and magnesia compounds decreased by treatment with ethylene chlorhydrin. For example, forty parts of fatty acids are dissolved in fifteen parts of butyl alcohol nd neutralized with concentrated potash lye. After cooling, thirty-three parts of the ethylene chlorhydrin are stirred in. The addition of carbon tetrachloride is said to further increase the fat-dissolving action of the product. — German Patent No. 466,301.

Potash hard soaps, prepared from tallow, palm oil, or hydrogenated stock, with fifteen to twenty-five per cent of coconut or palm kernel oil, have been used for many years past in the textile industries in France, particularly for washing lace. They are prepared by boiling the fat directly with potash lye, and there is no separation of glycerin lye. These soaps are usually made to contain about sixty-five per cent fatty acids and have very good lathering qualities, as would be expected. — *Chem. et Ind.*

A cleaning composition said to be particularly suitable for cleaning hats or leather goods is prepared of the following ingredients and proportions: water 128 parts, sulfur 4 parts, oxalic acid 3 parts, sugar of lead 2 parts, soda ash 4 parts, bicarbonate of soda 2 parts, sodium hyposulfite 8 parts, alum 2 parts, hydrogen peroxide 3 parts, all suitably perfumed. —U. S. Patent No. 1,688,540.

The degumming effect on crude silk, in aqueous solution of any specific soap is proportional to its hydrolyzing action. The hydrolyzing actions of a number of commercial soaps have been determined by the salting-out, the titration, the toluol and the electric conductivity methods. The salting out method proved unsatisfactory, but the other methods yielded comparable results, in terms of which their degumming capacities were then expressed. The toluol method, however, in which the fatty acid set free by hydrolysis is extracted by toluol and weighed, gave results slightly too low. The toluol method gives unreliable results for hydrolysis when employed with soaps containing oxidized fatty acids. The degumming capacities of sodium stearate, sodium palmitate and sodium oleate were found to decrease in the order given. — *British Soap Manufacturer*, 1928.

Soaps are prepared in powdered form by spraying a heated, freely flowing soap solution in fine drops into a current of heated gas which dries and solidifies the drops into hollow globular particles. The particles are of uniform size and may be small, but comprise no dust. Soap passes from a tank by a pump through a heater with a thermostat and a steam-jacketed pipe to spray nozzles in a tower. Heated gas, preferably combustion products of an oil furnace diluted with air are supplied to a distributor to ensure uniform flow to the tower. The gas and the soap product are drawn through a duct to a centrifugal collector. Instruments registering desired temperatures and soap pressures are installed for control purposes. — Br. Patent No. 291,041. (Industrial Spray-Drying Corporation)

A suitable aromatic sulfonic acid substituted by at least one side chain containing at least three carbon atoms, for example, sodium butylnaphthalenesulfonate, may be used as a disinfectant, suitable for treatment of the hands, or of surgical instruments. — U. S. Patent 1,691,228.

To obtain soap solutions of low turbidity for use in silk-dyeing, it is recommended that the soap be prepared from an olive oil base and dissolved in water which is free from lime and magnesia salts and from carbon dioxide. — *Seifensieder Ztg.* 55, 319-20 (1928).

A laundry blueing composition not affected by soap or chlorine is formed of ultramarine 75 to 150 parts; sodium bicarbonate 1,000 to 2,500 parts, dragon's blood 3 to 15 parts, with or without soap 4,000 to 7,000 parts.—British Patent 281,998.

Soda Ash
Bicarbonate of Soda
Calcium Chloride
Caustic Soda

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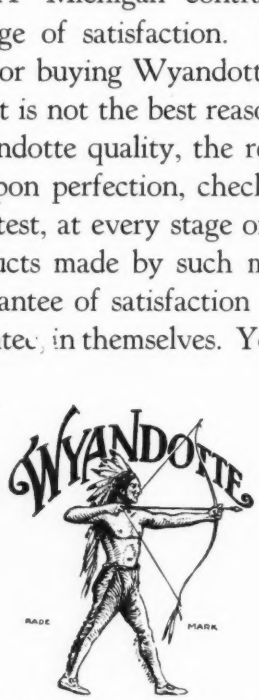

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CONTRACTS AWARDED

A. P. Hotaling & Co., San Francisco, awarded quantity of chip soap for Fort Mason Quartermaster at 9⅜c lb. Golden Eagle Soap Co., San Francisco, awarded quantity of powdered soap at 10¼c.

Holbrook Manufacturing Co., Jersey City, awarded quantity of chip soap for Frankford Arsenal at 8¾c lb.

Carden Drury Chemical Co. bid $149 for 20 kegs of green soap for Washington Veterans' Bureau.

John Rothschild & Co., San Francisco, registered the following bids at a Fort Mason Quartermaster's subsistence bidding: shaving soap, 3.3c; tube shaving soap, 20c; tooth paste, 14.45c.

General Soap Co., San Francisco, awarded quantity of laundry soap for Fort Mason Quartermaster at 4.34c lb. Newell-Gutradt Co., San Francisco awarded quantity of white floating soap at 5.75c; quantity of salt water soap at 4c. Hockwald Chemical Co., San Francisco awarded quantity of liquid soap at 47c. G. R. Lucy & Co., San Francisco, awarded quantity of scouring soap at 2.26c.

Procter & Gamble Distributing Co., Chicago, awarded 3,000 lbs. laundry soap for Chanute Field at 5.09c lb.; 6,000 lbs. for Harrison at 5.09c; 540 for Fairfield at 5.09c; 4,800 for Selfridge Field at 5.09c; 4,020 for Sheridan at 5.09c; 600 for Custer at 5.09c; 2,400 for Brady at 5.09c; 2,400 for Des Moines at 5.09c; 840 for Meade at 5.49c; 900 for Lincoln at 5.49c; 8,800 for Snelling at 5.09c; 1,200 for Hayes at 5.09c; 60 for Cairo at 5.09c; 1080 for Fort Wayne at 5.09c; 540 for Chicago at 5.09c; 900 for Rock Island at 5.09c.

Windsor Soap Co., Washington, awarded 700 cakes white floating soap for Chanute Field at 3.57c and 3.53c; 300 for McCoy at 5.34c and 5.28c; 1,000 for Selfridge Field at 5.34c and 5.28c; 600 for Fort Wayne at 5.34c and 5.28c. United States Soap Co., Cincinnati, awarded 400 cakes grit soap at 3c; 600 for Selfridge Field at 3c; 1,500 for Sheridan at 3.1c; 1,000 for Fort Wayne at 3c; 200 for Des Moines at 3.2c; 568 cans scouring powder for Chicago Quartermaster at 3 1/3c.

Day & Frick Soap Works, Chicago, awarded 100 cakes grit soap for Custer at 3.45c; 100 for Brady at 3.45c; 200 for Lincoln at 3.45c; 700 for Snelling at 3.45c.

Grady Manufacturing Co., Long Island City, awarded 1,000 cans silver polish for Philadelphia Marine Corps at 8c.

Powdered soap is dutiable at 15% ad valorem as an unclassified soap product, and not at 30% as toilet soap, according to a recent decision of the United States Court of Customs Appeals in a case brought by the Government against Yardley & Co., Ltd. The Court pointed out that a soap was not toilet soap unless used as such, which was not the case in connection with the product in question. At the same time the Court cleared up another point in affirming that powdered soap and soap powder are markedly different products.

The manufacturers of products known as "lemon soap", "lemon complexion soap", which in fact contained nothing derived from lemons, and also "Pure olive oil castile soap" which was not manufactured from olive oil so that it could be so described, have agreed by stipulation to cease thus labelling these soaps, according to the Federal Trade Commission. As is the custom when agreement is reached by stipulation, the name of the firm has not been made public.

United States imported 379,742 lbs. of castile soap, valued at $50,637, during December, 1928, as compared with 156,072 lbs., worth $22,167, during December, 1927. Imports of toilet soap totaled 236,614 lbs., worth $62,376, as compared with the 121,987 lbs., imported in December, 1927, at a price of $45,814.

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Mechanics Soaps	Liquid Soaps
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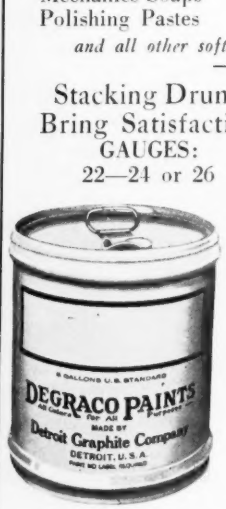

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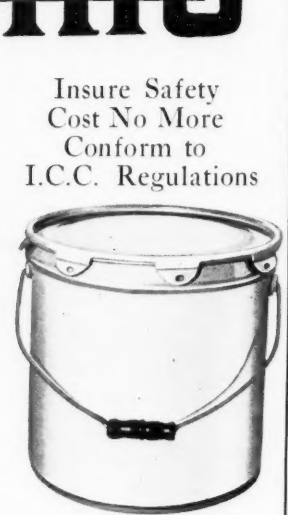
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and are not an advertiser in either SOAP or the BLUE BOOK you won't receive a copy unless it is ordered. Your check for one dollar, attached to your letter head will get your copy promptly.

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MACNAIR-DORLAND COMPANY, INC.
136 LIBERTY STREET NEW YORK

RECORD OF TRADE-MARKS

The following trademarks were published in the February issues of the *Official Gazette* of the United States Patent Office in compliance with section 6 of the Act of Sept. 20, 1905 as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, a fee of ten dollars must accompany each notice of opposition.

Trade-Marks Filed

Sketch of baby, describing toilet soap. Filed by Charles A. Crary, Wyoming, Cincinnati, Ohio, April 5, 1928. Claims use since March 17, 1928.

Rome—This in solid letters with sketch of wolf and two human babies, describing washing compound. Filed by Rome Cleanser Co., Chicago, Nov. 1, 1928. Claims use since Aug. 11, 1928.

Kiltie—This on reverse plate with sketch of man in kilts, describing cleaner. Filed by Dalrymple Co., Benton Harbor, Mich., Nov. 1, 1928. Claims use since Apr. 4, 1928.

Frutine—This in solid letters describing shaving soap. Filed by Siko, Inc., New York, Nov. 28, 1928. Claims use since Aug. 7, 1928.

Pep—This in solid letters describing tooth paste. Filed by First National Stores, Inc., Somerville, Mass., Dec. 14, 1928. Claims use since Nov. 22, 1928.

Moth-Gas—This in solid letters describing insecticides. Filed by Lewy Chemical Co., New York, Aug. 24, 1928. Claims use since on or about Nov. 8, 1927.

Flit—This on reverse plate together with figure of soldier and text matter in Spanish, describing disinfectants and insecticides. Filed by Stanco, Inc., Wilmington, Nov. 9, 1928. Claims use since Sept. 11, 1928.

Vitalo—This on reverse plate with drawing of dirigible, describing insecticides. Filed by Congress Petroleum Corp., Rahway, N. J., Nov. 12, 1928. Claims use since Nov. 5, 1928.

Oxiton—This in solid letters describing tooth paste and mouth wash. Filed by William R. Messer, Boston, Mass., Dec. 14, 1928. Claims use since Nov. 6, 1928.

Liberty—This in solid letters describing insecticides and disinfectants. Filed by Apothecaries Hall Co., Waterbury, Conn., Nov. 21, 1928. Claims use since 1927.

Figure of man on horse describing soaps. Filed by D'Orsay Perfumeries Corp., New York, Oct. 30, 1928. Claims use since 1915.

K. P.—This in outline letters describing metal-cleaning compound. Filed by Keystone Products Co., Pittsburgh, Dec. 8, 1928. Claims use since about Nov. 15, 1928.

Sanilather—This in solid letters describing shaving cream. Filed by William A. Webster Co., Memphis, Dec. 8, 1928. Claims use since Oct. 22, 1928.

Stopest—This in solid letters describing insecticide. Filed by William K. Richman, Philadelphia, Oct. 3, 1928. Claims use since July, 1927.

Dr. Davis—This in solid letters on designed background describing tooth paste. Filed by John W. Davis, Jr., Houston, Nov. 26, 1928. Claims use since April 5, 1928.

Death-O'-Moth—This in solid letters across face of triangle, describing disinfecting crystals. Filed by Wing Co., Detroit, Nov. 26, 1928. Claims use since Sept. 15, 1928.

Daenite—This in solid letters describing insecticides. Filed by Chemical Products Co., Glendale, Cal., Nov. 30, 1928. Claims use since June 27, 1928.

"Eureka"—This in solid letters describing insecticides and disinfectants. Filed by Eureka Vermin Exterminating Co., New York, Dec. 8, 1928. Claims use since about 1910.

Oronite—This in solid letters describing auto soap and cleaning fluid. Filed by Standard Oil Co. of California, Wilmington, Sept. 7, 1928. Claims use since June, 1921.

Gembermagic—This in solid letters on designed background describing rug shampoo. Filed by Anna Gamber, Cleveland, Oct. 5, 1928. Claims use since Sept. 19, 1928.

Billy B. Van's—This in solid letters as a signature describing shaving cream and

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Complete Equipment for LIQUID SOAP MANUFACTURE

We manufacture equipment especially suitable for liquid soap manufacture. Besides supplying the necessary machinery, our service includes advice as to the best manufacturing method, individual cases of course requiring distinct suggestions. Consult us before you fit up a liquid soap plant. Tell us what output you expect to start with and complete plant details, together with equipment costs, will be furnished promptly.

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Successors to

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toilet soap. Filed by Pine Tree Products Co., Newport, N. H., Nov. 1, 1928. Claims use since March 15, 1925.

Nutro-Dent—This in solid letters describing dentifrice. Filed by Ford & Nicolai, San Francisco, Feb. 1, 1928. Claims use since Nov. 1, 1927.

Salsodine—This in solid letters describing tooth paste. Filed by Samuel M. Burgess 2nd, Cleveland, Aug. 13, 1928. Claims use since March 4, 1927.

G P C—This in solid letters in diamond design describing tooth paste. Filed by Gilbert Products Corp., New York, Oct 12, 1928. Claims use since March, 1928.

P M G—This in solid letters describing tooth paste. Filed by Gilbert Products Corp., New York, Oct. 12, 1928. Claims use since March, 1928.

G P C—This on reverse plate in diamond shaped design describing tooth paste. Filed by Gilbert Products Corp., New York, Oct. 12, 1928. Claims use since March, 1928.

Purident—This in solid letters describing tooth paste. Filed by Purident Co., Chicago, Nov. 9, 1928. Claims use since about Aug. 1, 1928.

Savon Cadum—This in shaded letters on designed wrapper, describing soap. Filed by Omega Chemical Co., New York, May 22, 1928. Claims use since January, 1914.

Lord Baltimore—This in solid letters with design of sun, describing metal polish. Filed by Taubman Automotive Co., Baltimore, June 25, 1928. Claims use since Sept. 1, 1924.

Trade Marks Granted

No. 251,735. Insecticide. Burrell-Dugger Company, Indianapolis, Ind. Filed August 11, 1928. Serial No. 270,875. Published October 16, 1928. Class 6.

No. 251,754. Fly Spray. Globe Laboratories, Fort Worth, Tex. Filed May 16, 1928. Serial No. 266,461. Published October 16, 1928. Class 6.

No. 251,789. Insecticides. Sinclair Refining Company, New York. Filed April 12, 1928. Serial No. 264,738. Published May 22, 1928. Class 6.

No. 251,814. Tooth Paste and Mouth Wash. Jaciel Perfumers, Inc., New York. Filed August 22, 1928. Serial No. 271,388. Published October 23, 1928. Class 6.

No. 251,833. Insecticides and Disinfectants. Stanco Incorporated, Wilmington.

(*Continued on Page* 123)

New Patents

Conducted by

LANCASTER & ALLWINE

Registered Attorneys

PATENT AND TRADEMARK CAUSES

402 Ouray Building, Washington, D. C.

Complete copies of any patents or trademark registrations reported below may be obtained by sending 25c for each copy desired to Lancaster & Allwine. Any inquiries relating to Patent or Trademark Law will also be freely answered by these attorneys.

No. 1,699,364—Soap Dispensing Apparatus. Patented January 15, 1929 by Louis Kooperstein of New York, N. Y., assignor to West Disinfecting Company, Long Island City, N. Y., a Corporation of New York. A soap dispensing apparatus comprising a casing, a soap chamber in the casing, a discharge outlet and a valve shutting off the same from the soap chamber, an air chamber formed in the casing laterally of the soap chamber and having a passageway normally communicating with the latter, a valve for controlling the passage of soap into the soap chamber and means for normally holding the same in open position, and means for shutting off the soap chamber from the air chamber and establishing a communication between the air chamber and the discharge outlet comprising a plunger adapted to successively actuate said valves.

No. 1,683,566, Soap Dish, Patented September 4, 1928 by William J. Mix of Decatur, Illinois, assignor to Adolph Mueller, trustee, Decatur, Illinois. A soap dish comprising a tray-like body having at its rear a portion adapted to extend between the supply pipe couplings of a double faucet and provided at opposite sides with means to loosely engage said couplings to support the tray in front of said couplings and hold it from lateral movement.

Exports of soap and toilet preparations from United States to Uruguay were larger in 1928 than in any year previous. Dentifrices valued at $30,000 and soap worth $9,000 were sent to Uruguay.

MYSORE GOVERNMENT

East Indian Sandalwood Oil

SOLE DISTRIBUTORS

Essenflour Products, Ltd.

Mysore S. India

Distillers of Essential Oils and Manufacturers of Perfumery Products

THE Mysore Government distills and sells only one grade of Oil, a strictly pure genuine Sandalwood Oil put up in distinctive cans and cases, labelled and serially numbered. Oil supplied in other styles of containers may be U. S. P., but we can accept no responsibility for its genuineness or its freedom from adulteration. The buyer who specifies Mysore Oil should receive it in original containers and is then absolutely protected. This oil we offer exclusively in labelled containers. Further protection is insured by the smaller label placed over the cap. This label is numbered and a complete record of each case shipped is kept by us.

For your own protection, insist on Original Cans and Cases

PACKED IN 100-LB. CASES—EACH CASE CONTAINS 4 25-LB. TINS
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Market Report on

ESSENTIAL OILS AND AROMATICS

(*As of March 8, 1929*)

NEW YORK—Several price advances featured the market for essential oils and aromatics during the recent period. Shortage of brown camphor oil ran up prices on sassafras and safrol. Prices on orange oil were sharply higher as a result of short stocks, carrying lemon oil prices up also. Geranium was in strong position, as reports from abroad indicated damage to the crop. Citronnella, cloves and sandalwood oil maintained their recent strong positions. Cederleaf, cedarwood and lavender were unchanged. Bergamot was easier, and cassia was the only oil which suffered any considerable price decline.

Oil Bergamot

Bergamot was still easy and unchanged in price after the recent decline. The market is now in a more normal condition with oil in coppers priced at $4.50 to $5.25 lb.

Oil Cassia

The situation on cassia is apparently adjusting itself, and as shipments of rectified material come in from abroad, prices are returning to normal. Re-distilled is priced at $1.75 to $1.90 lb.

Oils Cedarleaf and Cedarwood

These oils were unchanged in price, holding to the figures set at the close of last period. Cedarleaf was quoted at 95c to $1.05 lb., with Cedarwood at 26c to 28c.

Oil Citronella

Citronella continued in a very strong position as the result of shortage of spot stocks. Ceylon oil advanced during the period, and closed at 46c to 48c lb., with Java at 48c to 51c.

Oil Cloves

Clove oil was still very firm with every indication that the market would continue so until late September, when anticipation of good shipments of the new crop may relieve conditions. Priced at $2.65 to $2.75 lb.

Oil Geranium

Reports from Europe indicated that the ex-

D&O
ESTABLISHED IN 1798

Integrity & Organization
Are Behind The D&O Label

Oil Lavender Flower
Oil Lavender Spike
Oil Geranium Bourbon
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Naturally Pure Oils

DODGE & OLCOTT COMPANY
87 Fulton Street New York City

The integrity of the house is reflected in the quality of its products

Merck's Methyl Salicylate

You know the reputation of Merck's Standard Chemicals. In the manufacture of soaps, or for any purpose for which Methyl Salicylate is employed—*use Merck's*

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INC.
MANUFACTURING CHEMISTS

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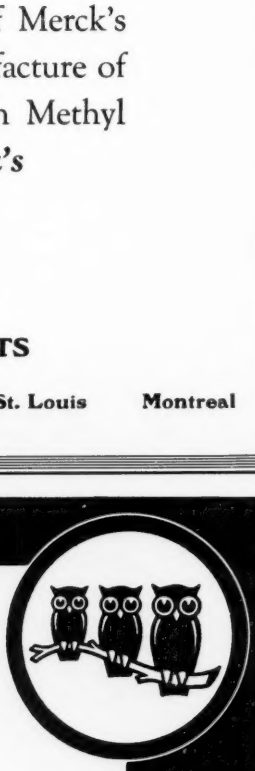
TERPINEOL — V. F.



Odor — Clean Refreshing — Lilaclike
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tended cold wave might seriously effect the geranium crop, bringing on a shortage. This information was discounted by some domestic dealers. The market was very firm, however, with quotations of $4.10 to $4.50 on African, and $4.35 to $5.00 on Bourbon.

OIL LAVENDER

Lavender was unchanged at previous quotations, ranging from $2.75 to $5.00 lb, according to quality.

MESSINA ESSENCES

With short stocks and increased demand for orange oil, coupled with a strong demand for fresh fruit, prices rose sharply during the recent period. The effect of the short West Indian and Italian crops was felt, as prices rose to $6.50 to $7.35 lb. for these oils. Oil orange is strongly held, and threatens to go higher. Lemon oil rose again during the period, on the strength of orange oil, and was quoted from $4.50 to $5.00 at the close.

OIL SANDALWOOD

Sandalwood was still very short on spot, although more deliveries were being made. Some material could be obtained at $8.50 lb., but $9.00 was the price most often quoted by dealers.

SAFROL AND SASSAFRAS

The rise on safrol, sassafras and camphor oil continued, as cables from Japan reported brown camphor oil to be very scarce. Artificial sassafras was quoted at 33c to 37c lb., with safrol at 40c to 42c. White camphor sold at 13c to 16c lb., with camphor, sassafrassy, at 19c to 21c lb.

P. R. Dreyer, head of P. R. Dreyer, Inc., New York essential oil and aromatic chemical importers, returned from a five weeks' trip through the Middle West early this month. Mr. Dreyer reports having found business quite satisfactory, throughout that section of the country. While in Minnesota he was treated to a good sample of Western winter weather, the thermometer having dropped to eighteen below zero.

Severe damage to some of the flower crops of the Grasse region of France due to the recent extreme cold weather from which Europe has suffered, may bring a reduction in neroli production and other oils this year, according to Ungerer & Co., New York.

Syntharome Laboratories, 249 Pearl St., New York, recently entered the essential oil field, and will handle a complete line of essential oils and aromatic chemicals.

JASMIN SAVON F

A strong, sweet lasting Jasmin perfume for toilet soaps, etc.
Price $3.00 per pound.
Write for trial pound or free sample.

BAUMODORS

Low cost soluble resins of particular interest to soapmakers

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Superior quality at reasonable prices

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Caustic Soda

Solid - Flake
Ground - Liquid

Soda Ash

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Columbia Chemical Division

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Quality -- Service

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Say you saw it in SOAP!

Market Report on

SOAP AND DISINFECTANT CHEMICALS

(*As of Feb. 8, 1929*)

NEW YORK—The chemical market was a very quiet affair during the recent period. The only item of any real interest was a shortage of phenol on spot, which ran prices up. Movements of alkalis continued in good volume, with the market very strong. Except in the case of phenol, the prices of coal tar products were unchanged. Prices on dynamite glycerin and the various grades of rosin were slightly lower. Menthol and insect powder were also priced lower.

Alkalis

Consumers continued to demand large quantities of alkalis during the recent period, with the result that shipments were heavy. There was little free material in the market, and producers were still well sold ahead on their estimated production. While the base price for solid caustic at the works was unchanged at $2.95 for 100 lbs., it is quite possible that there may be a change in this figure if demand continues in such volume.

Coal Tar Products

Phenol was very short on spot, and was quoted up to 14½c and 15c lb. Buyers were not discouraged by these prices, and continued drawing material. The shortage will probably continue for several months. Cresylic acid, pale and dark, were unchanged at the quotations prevailing at the close of last period. naphthalene flakes, creosote oil, tar acid oils and paradichlorobenzene were also unchanged.

Glycerin

With continued absence of demand for glycerin in any great volume, prices on dynamite were shaded ½c lb. under the closing prices of last period. Material could be obtained as low as 11½c lb. C. P. was quoted at 15½c to 16c lb., and saponification at 8¼c to 8½c. Soap lye was down to 7c lb. in some quarters, up to 7½c from other suppliers.

THE NEWPORT PRODUCTS *for soap makers*

TETRALIN and HEXALIN

Hydrogenated Coal Tar Bases with High Boiling Points and Better Dissolving Properties

for oils, waxes, greases and fats than the solvents commonly used — therefore they are ideal for incorporation with Soaps and Detergents destined to be used in textile processing.

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STAUFFER BRAND

Caustic Soda

"STAUFFER BRAND" Caustic Soda can be supplied either solid or liquid, in drums or tank cars. It is uniform, pure and worth while using in your soap products. Send your next Caustic Soda inquiry to us.

also makers of Carbon Tetrachloride *for cleaners*

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The Filler and Abrasive that is Right for

SOAPS of a high quality. An excellent mild abrasive for use in mechanics' hand soap and soaps requiring smooth abrasive action without the slightest injury to the most delicate skin.

CLEANSERS AND SCOURING POWDERS: Quick to act, but being soft and absorbent does not have the harsh surface scratching tendencies of other Silicas.

POLISHES of all kinds — Cake form, paste or liquid. The individual Tripoli particle breaks down as rubbing pressure is applied making it particularly adaptable for Duco and Lacquer Rubbing Pastes, Automobile Body Polishes and all Metal Polishes in general.

Write for Samples and Full Information

AMERICAN TRIPOLI COMPANY

Subsidiary Barnsdall Corporation *Incorporated* 1892 **SENECA, MISSOURI, U. S. A.**

ROSIN

Darker grades of rosin were in good volume early in the month, resulting in lower prices. Toward the close of the period lighter offerings brought about a recovery. Lighter grades were fairly firm throughout the period. The net changes in price from the close of last period were small, being in no case greater than 20c bbl. Closing quotations were: B, $8.25; H, $9.30; K, $9.40; N, $10.20; WG, $11.25; WW, $12.20; wood works $7.00

MISCELLANEOUS

Menthol cases were down to $5.75 lb. inside, up to $6.00. Pine oil was quoted at 61c to 65c lb. Insect powder was slightly lower at 44c to 46c lb.

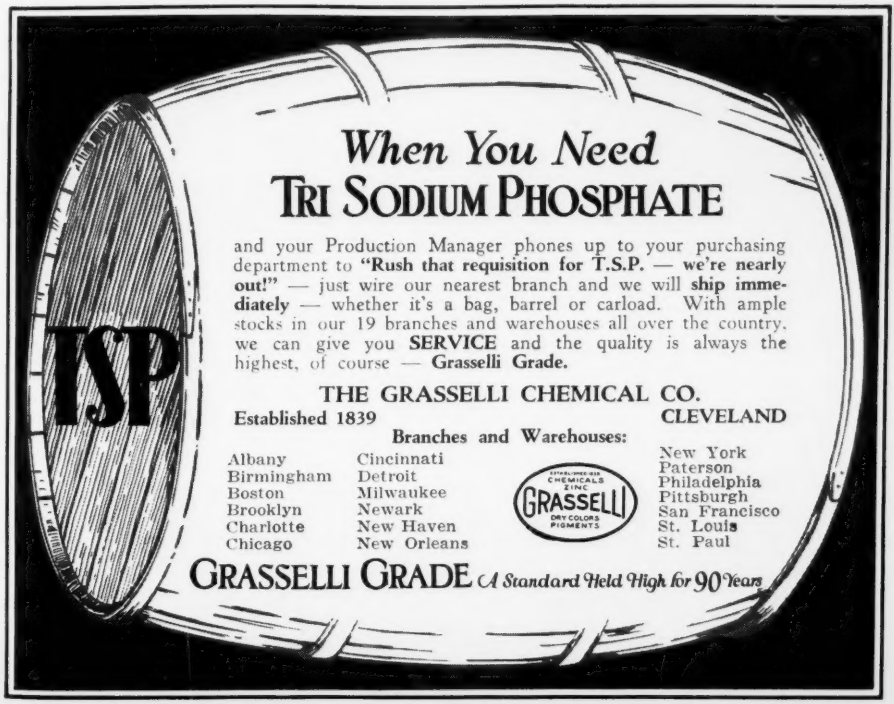
Lambert Pharmacal Co., St. Louis, makers of Listerine and Listerine tooth paste, recently leased a building at 930 Newark Ave., Jersey City, N. J., for a long term of years at a rental of $2,000,000. The building contains 200,000 sq. ft. of floor space, and has been fully equipped as a manufacturing plant.

Boots' Pure Drug Co., Ltd., Nottingham, England, is building a new soap plant at Beeston which will triple its output of soap. The new plant is a two-story building equipped in the most modern manner.

H. F. & G. Name Changed

The name of Harshaw Fuller & Goodwin Co., Cleveland, has been changed to Harshaw Chemical Co. in order that the name of the company might better express its connection with the chemical industry. This change was made by the stockholders at a recent meeting, and at the same time 200,000 shares of no-par common stock were authorized. Half of these shares were exchanged for the present common stock, and an additional 10,000 shares will be sold. W. A. Harshaw, head of the company, organized it personally in 1892, to engage in buying and selling chemicals. He was joined shortly afterwards by Ralph L. Fuller and Wallace B. Goodwin. These men were connected with the company for many years, but have now been inactive for some time. A. W. Harshaw was president of the company from 1898 to 1924, at which time he became chairman of the board, and John A. McGean became president. At the recent meeting Mr. McGean resigned, and A. W. Harshaw was again elected president.

A. F. Loertz, of the H. C. Whitmer Co., Columbus, Indiana, whose recent severe illness was treated at the Mayo Brothers Clinic, has now returned to Chicago in a much improved condition.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and your Production Manager phones up to your purchasing department to "Rush that requisition for T.S.P. — we're nearly out!" — just wire our nearest branch and we will ship immediately — whether it's a bag, barrel or carload. With ample stocks in our 19 branches and warehouses all over the country, we can give you SERVICE and the quality is always the highest, of course — Grasselli Grade.
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THE GRASSELLI CHEMICAL CO.
Established 1839
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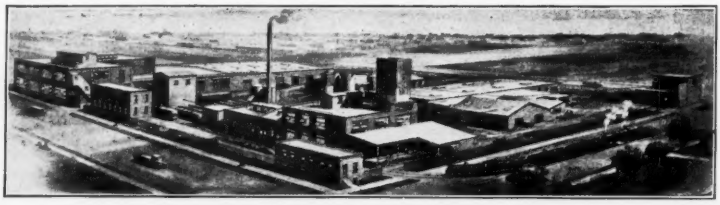
GRASSELLI GRADE A Standard Held High for 90 Years

Buy direct from the Manufacturer!



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CORN — COCONUT — COTTONSEED — PEANUT and PALM KERNEL

There are numberless obvious advantages in buying your raw materials direct from the manufacturer. Not the least lies in our ability to handle our customers' orders promptly at all times. Over fifty years' experience in this business means that the oils and fatty acids will be right in quality and price.

What are your needs?

Barrels, Drums or Tank Cars **Spot or Shipment**

C. F. SIMONIN'S SONS, INC.

Established 1876

TIOGA and BELGRADE STREETS - PHILADELPHIA

PALM OIL

SOFTS MEDIUMS HARDS

Bulk or Packages

Direct importations from our own Produce Stations in the Oil Palm Districts of West Africa.

Palm Kernel Oil

Crushed and Extracted
Bulk and Packages

Direct Importers of
Sumatra and Malay

Palm Oil

Rice Oil — Sheanut Oil — Sun Flower Oil — Soya Bean Oil — Sesame Oil

AFRICAN & EASTERN TRADING CO., Inc.

8-10 Bridge Street New York

Say you saw it in SOAP!

Market Report on

TALLOW, GREASES AND OILS

(As of Mar. 9, 1929)

NEW YORK—Prices of oils, fats and greases were generally higher at the close of the recent period than at the start. Corn oil was very firm as the result of short stocks, and continued its recent advance. Lard, tallow and the greases were also in strong position, and fractional price advances occurred on a number of items. Red oil was very firm at an advance. Coconut oil was fractionally lower. Olive oil and foots registered the only important price declines.

Coconut Oil

Quiet conditions in the coconut oil market brought about several price declines. New York tanks were priced at 8⅛c lb. for Manila oil, with coast tanks at 7¾c.

Corn Oil

Stocks of corn oil were short and price advances occurred during the period. Tanks were quoted at 9½c to 9¾c lb., with barreled oil and fatty acid priced alike at 11c.

Cottonseed Oil

Trading in cottonseed oil was quiet during the recent period, with little buying interest shown. Strength in competing materials prevented any decline.

Grease and Lard

With a fair inquiry for these items, prices advanced fractionally on several grades. Yellow and house grease were priced higher at 8½c to 8⅝c lb. Lard was quoted at 11¾c lb. for prime steam tierces, with compound priced at 12½c to 12¾c.

Olive Oil and Foots

Stocks of these oils were in better volume than at the close of last period, with resultant shading of prices. With demand continuing steady the market firmed up at the close. Olive oil was quoted at $1.30 to $1.35 gal., and foots at 10½c to 11c lb.

Stearic Acid

Double and Triple Pressed— Cakes and Powder

Especially suitable for use in the manufacture of shaving creams, textile soaps, metal polishes, textile specialties and related products.

Large production insures the uniformity of Emery stearic acid and is your guarantee that we can meet your demands for quality and service day in and day out. May we quote on your next requirements?

Red Oil

Regular Elaine — Olive Elaine Special Olive Elaine — Single and Double Pressed Saponified—Fatty Acids

Special Olive Elaine is recommended by the N. A. D. C. for use in dry cleaning soaps. Emery Elaines will improve your soaps, polishes and similar products. Our Saponified and Distilled oils are the standards for the industry.

These oils run absolutely uniform, with an unusually low percentage of unsaponifiable material. Shipments can be made on short notice, from warehouse stocks located throughout the country.

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The Emery Candle Company
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Coconut Oil *Olive Oil* *Oleo Stearine*
Palm Kernel Oil *Olive Oil Foots* *Oleo Oil*

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Brown-Edwards Co., Inc.

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Specialists in Foreign

VEGETABLE OILS
OIL SEEDS
GLYCERIN

COPRA, COCONUT OIL, PALM KERNEL OIL, VEGETABLE TALLOW, ANIMAL TALLOW, SOYA BEAN OIL, LINSEED OIL, FISH OILS, AND WHALE OIL

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SOAPMAKING OIL

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RUBBERSEED OIL

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SOFT SOAPS
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CAUSTIC SODA
SODA ASH
SAL SODA
BATH POWDER SODA
CAUSTIC POTASH
CARBONATE POTASH

FATTY ACIDS

VEGETABLE OILS

OLIVE OIL
OLIVE OIL FOOTS
COTTONSEED OIL
SOYA BEAN OIL
SESAME OIL
PALM OIL
PALM KERNEL OIL
COCOANUT OIL
RAPESEED OIL

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RED OIL

Increased costs caused producers of red oil to advance quotations on all grades. Demand was active in the face of the advances, which averaged about ½c lb. Closing quotations were 11⅛c to 11⅝c lb. for distilled or saponified in bbls., and 10¼c lb. in tanks.

TALLOW

Market was firm and most grades advanced ¼c lb. during the month, but there was a slight easing at the close, and prices declined again.

Shreve M. and George R. Archer, of Archer-Daniels-Midland Co., have become interested in the commercial possibilities of kukui oil, made from crushing kukui nuts grown in Hawaii. They hope to find this oil suitable for use in the manufacture of soap, paints, varnishes and linoleum. The kukui nuts can be collected a small expense, and are comparatively free from fungous diseases and insects.

Replies on Castile Soap

(*From Page* 45)

how much easier it was to investigate before stepping off, etc. etc. Are you just a little bit inconsistent or are you just a little biased, and need a new viewpoint? How much better situated are you to render a decision on the case than is the commission?

Why not get behind the work the commission is attempting, and prevent conditions such as this from arising instead of allowing them to gain headway, and then set up a hullabaloo because the commission, created to hold such things in check, are forced to spend the "public's money" to stop the practice. A little propaganda along these lines might help save some of this money for us. I believe you will concede, if you will stop to thing a little, that this case does not limit itself to just castile soap alone, but will establish a precedent for all similar cases which may and will come up in the future.

I have noticed a tendency on your part in all of your editorials to belittle the efforts of these control bodies, but I believe it is because of your lack of knowledge of the buying public and their culpability to believe anything they see in print, and I also believe that if you will get out, and study the public more you will be able to understand a little better just what the Federal Trade Commission is trying to do.

GREEN OIL SOAP COMPANY,
GEORGE N. CASE,
Chemical Engineer.

DIAMOND "G"

Cochin and Ceylon Grade COCOANUT OILS

PRESSED FROM THE CHOICEST SELECTED PHILIPPINE COPRA AT OUR OWN CRUSHING PLANT ON THE PACIFIC COAST.

DIAMOND "G" COCOANUT OILS ARE PROCESSED especially for Soapmakers and meet the most exacting specifications.

Refined Soft Soap Oil
Corn Oil No. 2
Corn Oil Fatty Acid
Edible Cocoanut Oil
Cochin Type Cocoanut Oil
White Ceylon Grade Cocoanut Oil
Cocoanut Oil Fatty Acid
Soya Bean Oil Fatty Acid
Refined Palm Kernel Oil
Palm Kernel Oil
Mustardseed Oil
Peanut Oil Fatty Acid
Cottonseed Oil
Diamond "G" Bleached Beeswax
Purit Decolorizing Carbon
English China Clay "AA" Grade Bolted

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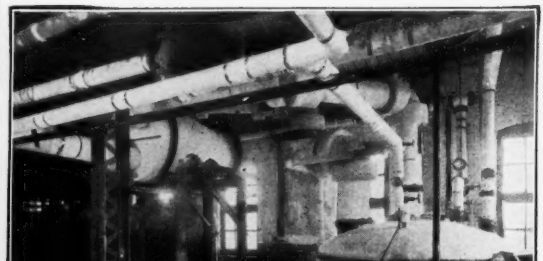
The most efficient Glycerine Refining Plant operating with the lowest refining loss and the highest yield of finished product.



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1. Highest yield of distilled glycerine.
2. Highest percentage of finished glycerine obtained on direct distillation, eliminating rehandling and losses.
3. Lowest steam consumption.
4. Extreme simplicity of operation.
5. Compactness of the plant.
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Complete Plants for

Crude, Dynamite and C. P. Glycerine
Laundry, Toilet and Liquid Soaps
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Fatty Acid Distillation
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WORLD'S LARGEST PUMICE STONE MILL

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All Grades ***Barrels or Carloads***

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M. A. BOET COMPANY
INCORPORATED

150 Nassau Street New York

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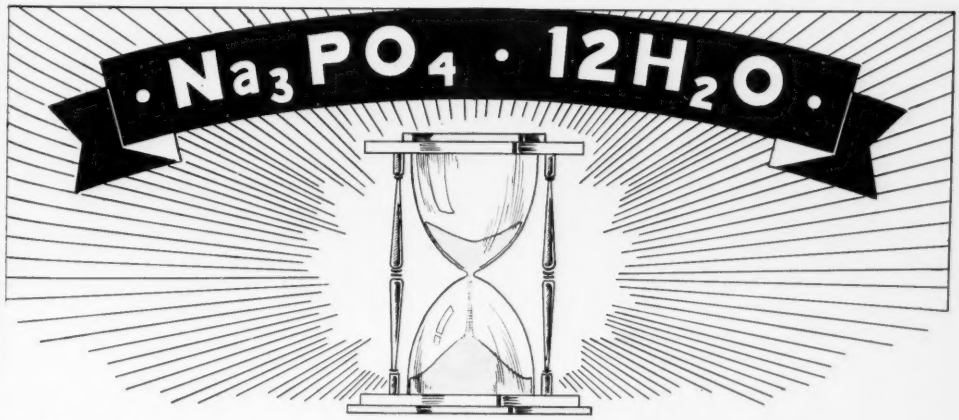
CURRENT PRICE QUOTATIONS

Chemicals

Acetone, C. P. drums	lb.	.15	.17
Acid, Boric, bbls., 97%	lb.	.05¾	.06¼
Cresylic, 97%, dk., drums	gal.	.58	.70
97-99%, pale drums	gal.	.65	.78
Formic, 85%, tech.	lb.	.11	.12
Oxalic, bbls.	lb.	.11	.12½
Salicylic, tech.	lb.	37	.42
Adeps Lanae, hydrous, bbls.	lb.	.14½	.15
Anhydrous, bbls.	lb.	.15½	.16
Alcohol, Ethyl, U. S. P., bbls.	gal.	2.67	2.80
Complete Denat., No. 5, drums,ex.	gal.	.48	.56
Alum, potash, lump, lb.	lb.	.03	.03 1/16
Ammonia Water, 26° drums wks.	lb.	.03	.03½
Ammonium Carbonate, tech., bbls.	lb.	.08	.13
Bay Rum, Porto Rico, denat., bbls.	gal.	.85	.90
St. Thomas, bbls.	gal.	.85	.90
Domestic, bbls.	lb.	.70	.75
Benzaldehyde, U. S. P.	lb.	1.15	1.30
Technical	lb.	.60	.65
Bleaching, Powder, drums	100 lb.	2.00	2.60
Borax, pd., cryst., bbls., kgs.	lb.	.02¾	.03½
Carbon Tetrachloride, car lots	lb.	—	.06¼
Carbon Tetrachloride, L. C. L.	lb.	.06½	.10
Caustic, see Soda Caustic, Potash Caustic			
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.14	.17
Creosote Oil, drums	gal.	.13	.16
Formaldehyde, bbls.	lb.	.09½	.10
Fullers Earth, bags	ton	15.00	30.00
Glycerin, C. P., drums	lb.	.15½	.16
Dynamite, drums	lb.	.11½	.11¾
Saponification, tanks	lb.	.08¼	.08½
Soaps, Lye, tanks	lb.	.07	.07½
Hexalin, drums	lb.	—	.60
Kieselguhr, bags	ton	30.00	60.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	1.70	2.25
Menthol, cases	lb.	5.75	6.00
Synthetic, Tins	lb.	3.00	3.75
Mercury Bichloride, kegs	lb.	1.65	1.80
Naphthalene, ref. flakes, bbls.	lb.	.04½	.05½
Nitrobenzene (Myrbane) drums	lb.	.09½	.11
Paradichlorobenzene, bbls.	lb.	.17	.18
Paraformaldehyde, kegs	lb.	.45	.47½
Petrolatum, bbls. (as to color)	lb.	.03	.08¾
Phenol, (Carbolic Acid), drums	lb.	.13¼	.15
Pine Oil, bbls.	gal.	.61	.65
Potash, Caustic, drums	lb.	.07⅛	.07¾
Flake	lb.	.07½	.09
Potassium Bichromate, casks	lb.	.09	.09¼
Pumice Stone, powd.	100 lb.	2.50	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lb.	bbl.	8.25	9.30
Grade K to N	bbl.	9.40	10.20
Grade WG and WW	bbl.	11.25	12.20
Wood, works	bbls.	—	7.00
Rotten Stone, powd., bbls.	lb.	.02½	.04½
Silica, Ref., floated	ton	22.00	30.00
Soap, Mottled 40 lb. box	lb.	.15	—
Powdered White, U. S. P.	lb.	.29	.30
Green, U. S. P.	lb.	.06¾	.07
Whale Oil, bbls.	lb.	.04	.05¼
Soda Ash, Contract, wks., bags, bbls.,	100 lb.	1.34½	1.57½
Five bbls., up, local	100 lb.	2.29	2.44



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This remarkable characteristic, plus uniform crystallization and brilliant color, have made VICTOR T. S. P. the outstanding favorite. Ample stocks at convenient centers assure low delivered cost. Place your next order with VICTOR.

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Semis and Niger

Palm Kernel Oil

Average Analysis
f.f.a. - 3.60
2.5 red - 30 yellow

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Soda Caustic, Cont., wks., sld.	100 lb.	2.95	—
Five drums up, solid, local	100 lb.	3.76	3.91
Five drums up, grnd. flk.	100 lb.	4.16	4.31
Soda Sal, bbls.	100 lb.	1.00	1.15
Soda, Sesquicarbonate, bbls.	100 lb.	3.00	3.75
Sodium Bifluoride	lb.	.17½	.19
Sodium Chloride (Salt)	ton	15.00	20.00
Sodium Fluoride, bbls.	lb.	.08½	.10
Sodium Hydrosulphite, bbls.	lb.	.23	.27
Sodium Phosphate, bbls.	lb.	.03 9/10	.04½
(Trisodium phosphate)			
Sodium Silicate, 40 deg., drum	100 lb.	.70	.80
Drums, 60 deg., wks.	100 lb.	1.65	—
In tanks, 10c less per hundred works.			
Tar Acid Oils, 15-25%	gal.	.26	.30
Zinc Oxide, lead free	lb.	.06½	.07
Zinc Stearate, bbls.	lb.	.24	.26

Oils—Fats—Greases

Castor, No. 1, bbls.	lb.	.13¾	.14
No. 3, bbls.	lb.	.13¼	.13½
Coconut, tanks, N. Y.	lb.	.08⅛	—
Tanks, Coast	lb.	.07⅞	—
Fatty acids, mill, tanks	lb.	.12	—
Cod, Newfoundland, bbls.	gal.	.65	.67
Copra, bags, Coast	lb.	.04¾	.04⅞
Corn, tank, mills	lb.	.09½	.09⅝
Bbls., N. Y.	lb.	.11	—
Fatty acid	lb.	.11	—
Cottonseed, crude, tanks, mill	lb.	.09	.09¼
PSY	lb.	.10½	.11
Fatty Acids, mill, bbls.	lb.	.11¼	—
Degras, Amer., bbls.	lb.	.04½	.06
English, bbls.	lb.	.05	.05¼
German, bbls.	lb.	.04	.04½
Neutral, bbls.	lb.	.07¾	.09½
Greases, choice white, bbls., N.Y.	lb.	.08¾	.10
Yellow	lb.	.08½	.08⅝
Brown	lb.	.08¼	.08½
House	lb.	.08½	.08⅝
Bone Naphtha	lb.	—	.08⅛
Lard, prime, steam, tierces	lb.	.11¾	—
Compound tierces	lb.	.12½	.12¾
Lard Oil, edible prime	lb.	—	.15¾
Extra, bbls.	lb.	—	.13½
Extra, No. 1 bbls.	lb.	—	.13¼
No. 2, bbls.	lb.	—	.12¾
Linseed, raw, bbls., spot	lb.	.1020	.11
Tanks, raw	lb.	.0940	—
Boiled, 5 bbls. lots	lb.	.1140	—
Menhaden, Crude, tanks, Balt.	gal.	—	Nom.
Light pressed, bbls.	gal.	.71	.73
Yellow, bleached, bbls.	lb.	.73	.75
Extra bleached, bbls.	lb.	.76	.78
Oleo Oil, No. 1, bbls., N. Y.	lb.	—	.11½
No. 2, bbl., N. Y.	lb.	—	.11
No. 3, bbls., N. Y.	lb.	—	.10½
Olive, denatured, bbls., N. Y.	gal.	1.30	1.35
Shipments	gal.	1.25	1.27
Foots, bbls., N. Y.	lb.	.10½	.11
Shipments	lb.	.10¼	.10½
Palm, Lagos, casks spot	lb.	.09¼	.09½
Shipments	lb.	.08½	.08⅝
Niger casks, spot	lb.	.08¾	.08½
Shipments	lb.	.07⅞	.08
Palm Kernel, pkgs.	lb.	.09	.09⅛
Tank cars	lb.	.08¼	.08½
Peanut, refined, bbls., N. Y.	lb.	—	.13½
Crude, bbls., N. Y.	lb.	—	.12
Red Oil, distilled, bbls.	lb.	.11⅛	.11⅝
Saponified, bbls.	lb.	.11⅛	.11⅝
Tanks	lb.	.10¼	—
Soya Bean, crude tks., Pac. Coast	lb.	—	.10
Crude, bbls., N. Y.	lb.	.12¼	.12½
Refined, bbls., N. Y.	lb.	.13¼	.13½
Stearic Acid			
Double Pressed	lb.	.18	.18½
Triple pressed, bgs.	lb.	.20	.20½
Stearine, oleo, bbls.	lb.	.11	.11½
Tallow, fancy, f. o. b. plant	lb.	.09¾	.10
City, ex. loose, f. o. b. plant	lb.	.09	.09¼
Tallow oils, acidless, tanks, N. Y.	lb.	.11½	.11¾
Bbls., c/l, N. Y.	lb.	.12	—
Whale, nat. winter bbls., N.Y.	lb.	—	.78
Blchd., winter, bbls., N. Y.	gal.	—	.80
Extra blchd., bbls., N. Y.	gal.	—	.82

NEUMANN-BUSLEE & WOLFE
(INC.)
MERCHANTS-IMPORTERS-MANUFACTURERS

Here in Chicago

—We maintain at all times adequate and complete stocks of raw materials used in SOAPS - SPRAYS - DEODORANTS, etc.

—We make deliveries as promised and when promised.

—We strive to make the word Service mean more than just buying and selling.

This accounts for the increasing volume of business we are doing in the great Mid-West primary market.

A few suggestions —

Jasmin No. 2149	$3.50 per lb.
Lilac No. 1931	$3.00 per lb.
Lemon No. 622	$6.00 per lb.
Rose No. 1556	$6.00 per lb.

We are well equipped to help you with your problems on Special Odors.

Write for complete list and samples

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POWCO BRAND
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LABORATORY CONTROLLED!

Neutral White Soaps

Let us tell you what *Laboratory Control* really means for the producer of dentifrices and toilet requisites.

Concentrated Shaving Cream Base

means simple production of the finest types of Shaving Creams - saves you 30% to 50%

We also furnish bulk finished shaving creams

Let Our Laboratory help you on your Soap problems.

JOHN POWELL & CO., INC., 114 E. 32ND ST., N. Y.

Say you saw it in SOAP!

Essential Oils

Almond, Bitter, U. S. P.	lb.	2.75	3.00
Bitter, F. F. P. A.	lb.	2.90	3.75
Sweet, cans	lb.	.78	.80
Apricot, Kernel, cans	lb.	.44	.46
Anise, cans	lb.	—	—
U. S. P. cans	lb	.57	.59
Bay, tins	lb.	2.50	2.80
Bergamot, coppers	lb	4.50	5.25
Artificial	lb.	2.00	3.25
Birch Tar, rect., bot.	lb.	.40	.45
Crude, tins	lb.	.11	.14
Bois de Rose	lb.	1.60	2.35
Cade, cans	lb.	.25	.26
Cajuput, native, tins	lb.	.70	.75
Calamus, bot.	lb.	3.25	3.50
Camphor, Sassy, drums	lb.	.19	.21
White, drums	lb.	.13	.16
Cananga, native, tins	lb.	3.00	3.10
Rectified, tins	lb.	3.65	3.85
Caraway Seed	lb.	1.70	1.80
Cassia, 80-85%	lb.	—	—
Redistilled, U. S. P., cans	lb.	1.75	1.90
Cedar Leaf, tins	lb	.95	1.05
Cedar Wood, light, drums	lb.	.26	.28
Citronella, Java, drums	lb.	.48	.51
Citronella, Ceylon, drums	lb.	.46	.48
Cloves, U. S. P., cans	lb	2.65	2.75
Copaiba	lb.	.60	.70
Eucalyptus, Austl., U. S. P., cans	lb	.58	.61
Fennel, U. S. P., tins	lb.	.80	.90
Geranium, African, cans	lb.	4.10	4.50
Bourbon, tins	lb.	4.35	5.00
Hemlock, tins	lb.	.95	1.10
Lavender, U. S. P., tins	lb.	2.75	5.00
Spike, Spanish, cans	lb.	.90	1.10
Lemon, Ital., U. S. P.	lb.	4.50	5.00
Lemongrass, native, cans	lb.	.80	.82
Linaloe, Mex., cases	lb.	2.50	2.60
Neroli, Artificial	lb.	10.00	20.00
Nutmeg, U. S. P., tins	lb.	1.80	1.90
Orange, Sweet, W. Ind., tins	lb.	6.50	6.75
Italian, cop.	lb.	6.75	7.35
Distilled	lb.	5.00	5.25
Origanum, cans tech.	lb.	.25	.30
Patchouli	lb.	5.75	6.50
Pennyroyal, dom.	lb.	1.80	2.00
Imported	lb.	1.20	1.30
Peppermint, nat. cases	lb.	3.10	3.20
Redis., U. C. P., cases	lb.	3.40	3.50
Petit Grain, S. A., tins	lb	1.90	2.10
Pine Needle, Siberian	lb.	.65	.70
Pinus Pumilio, U. S. P.	lb.	2.50	2.85
Rose, French	oz.	11.00	12.00
Bulgarian	oz.	12.00	15.00
Artificial	oz.	2.00	2.75
Rosemary, U. S. P., drums	lb.	.44	.50
Tech., lb. tins	lb.	.30	.35
Sandalwood, E. Ind., U. S. P.	lb.	8.50	9.00
W. Indian (Amayris)	lb.	2.25	2.40
Sassafras, U. S. P.	lb.	.80	1.10
Artificial	lb.	.33	.37
Spearmint, U. S. P.	lb	4.15	4.35
Thyme, red, U. S. P.	lb.	.72	.74
White, U. S. P.	lb.	.82	.84
Tech.	lb.	.60.	.70
Vetivert, Bourbon	lb.	6.00	9.00
Java	lb.	20.00	22.00
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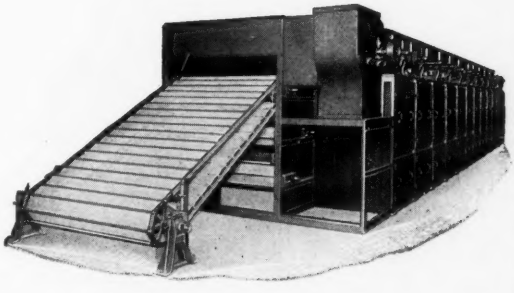

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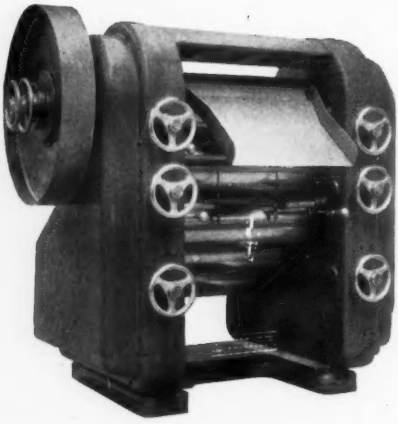

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Citronellal	lb.	2.75	3.25
Citronellol	lb.	4.00	5.00
Citronellyl Acetate	lb.	13.00	14.00
Coumarin	lb.	3.60	3.85
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Cans	lb.	.36	.38
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Bayberry, bgs.	lb.	.32	.34
Bees, white	lb.	.50	.52
African, bgs.	lb.	.36	.38
Refined, yel.	lb.	.41	.42
Candelilla, bgs.	lb.	.23	.25
Carnauba, No. 1	lb.	.46	.48
No. 2, Yel.	lb.	.40	.42
No. 3, Chalky	lb.	.26	.28
Japan, cases	lb.	.18	.19
Paraffin, ref. 125-130	lb.	.05	.06
Pine Oil, stm. dist.	gal.	.66	.67
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Suitable for preparations testing more than 70% by volume of alcohol.

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Suitable for preparations of water and alcohol testing less than 70% by volume of alcohol.

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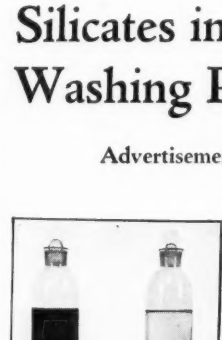
Silicates in Washing Processes

Advertisement No. 2



In considering the elements of the washing process, last month we reviewed the wetting of the goods.

Another important function of a detergent is to suspend solid dirt. Silicate of soda is an efficient means of causing the suspension of a great variety of solid materials.

The tubes in our illustration demonstrate this point. The right hand tube contains water and black oxide. The one on the left contains water, black oxide and "N" Brand silicate.

[Use Quartz Quality Silicates in your soaps and detergent products.]

Philadelphia Quartz Company
Philadelphia, Pa.

Chicago Sales Office
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Sandalwood Shortage

(*From Page 27*)

THE producers of Mysore oil point with pride to the fact that in spite of the unusual situation of the past three years, the price of oil has remained steady. The scarcity has become more acute as time went on, and as supplies of independent oil have become less and less, an increasing load has been thrown on official Mysore sources of supply. These sellers, however, have carefully controlled the situation to avoid any "runaway" market. Throughout the period, only one slight advance in price was made, that at the beginning of 1929.

Talk has been heard of a monopoly in sandalwood oil. The answer to this perhaps lies in a comparison between sandalwood and the peppermint oil situation of a few years ago, and in several other essential oils where scarcities have developed. It will be remembered that peppermint, when a scarcity similar to the present shortage of sandalwood developed, rose abruptly from something like $3.00 per pound all the way to $30.00 or $35.00 per pound. Regular consumers, among others, paid fancy prices for their oil and much that was not all peppermint masqueraded as peppermint oil. Were sandalwood oil supplies scattered today and the subject of open market "trading", there is every liklihood that the price would be several times what it is right now, and that a situation comparable with that of peppermint would have developed.

The production of explosives in the United States increased about 4% in 1927, as compared with 1925, from a value of $69,668,837 up to $72,489,668. Totals for the important items in 1927 were as follows: dynamite, 294,716,046 lbs., valued at $38,274,514; blasting powder, 5,475,299 kegs (25 lbs.), valued at $8,693,884; permissible explosives, 65,220,608 lbs., valued at $8,412,190; smokeless powder, 5,729,052 lbs., valued at $3,861,382.

"Pebecco" toothpaste will be manufactured in the Philippines by a company working under a royalty agreement with P. Beiersdorf & Co., Hamburg, according to a report received by the Department of Commerce. Machinery, tubes and materials are being imported from Germany, and the company is planning to turn out 2,000 tubes a day when it starts operating about August 1, 1929.

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D. CORREALE SANTACROCE
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Bergamot, Lemon and Orange Oils

Say you saw it in SOAP!

Saponification or Splitting?

(*From Page 31*)

The large difference in the coal consumption is however due principally to the lesser concentration of the spent lyes. It is necessary for example, to evaporate 20,000 kilograms of spent lyes in order to obtain 1,875 kilograms of crude glycerin with approximately eighty per cent glycerin content. On the other hand, the evaporation of 10,000 kilograms of glycerin liquor yields the same quantity of crude glycerin (1,700) kilograms of the liquid with 88 per cent pure glycerin content). It therefore follows that in concentrating spent lyes 4,000 kilograms of coal are consumed against a consumption of only 1,500 kilograms of coal in concentrating the glycerin liquor, the difference in coal consumption amounting to the large quantity of 2,500 kilograms.

THE figures that have been given above are altogether average figures picked at random. It must be said that it is possible to operate an evaporating installation with lower consumption of coal whether the evaporators are handling spent lyes or glycerin liquors. Furthermore, different methods may be used in boiling the soap in order to obtain a spent lye which is somewhat more highly concentrated than the one which has been discussed.

Losses are incurred due to vaporization during the evaporation of the glycerin-containing liquors. These losses are not to be confounded with those incurred due to foaming over of the liquor through the line leading to the wet-air pump and the sump. These are due to improper purification of the materials and to careless operation of the set of evaporators. The losses due to vaporization must be figured to be somewhat higher in the case of spent lye evaporation, but on the other hand, the losses are so small that they are scarcely of any moment in the present system of operating a soap works.

The single difference is the loss of glycerin that is incurred in the separation of the salt. This salt contains quite large proportions of glycerin. Thus a few analyses of the salts revealed the presence of 0.79, 1.30, 2.17, 2.60 and 3.16 per cent of glycerin. These glycerin figures are arranged in order of increasing concentration of the glycerin up to the finished product containing eighty per cent of pure glycerin.

The glycerin content of the salt may be reduced to 0.8 to 0.7 per cent by suitable washing and centrifuging. Under these conditions, the actual glycerin loss will be approximately 28 kilograms when the output of salt is 3,500 kilograms which are obtained from the eva-

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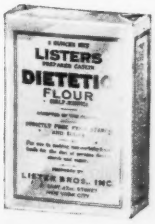

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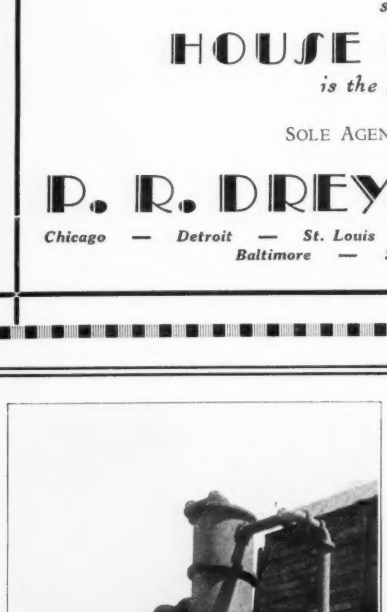

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WHEREVER conditions permit, the catchalls on GARRIGUE Evaporators are elevated with the barometric condensers and the returns from the catchall, instead, of being led back to the evaporator, are dropped into an open tank through a barometric column (U. S. Patent No. 1,317,488). By this means the operator is continually kept informed as to the amount of liquor being carried into the catchall and in case of excessive frothing can store the excess liquor in the tank until normal conditions are reestablished.

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Glycerine Distillation — Oil Refining
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Soap Powder Manufacture

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poration of 20,000 kilograms of spent lye. At the present market price for glycerin, it does not pay to try to recover this amount of glycerin in the salt, and the question arises whether it is worth while recovering under *any* conditions for the salt is used over again in salting-out the soap curd, and hence the glycerin contained in the salt does not go to waste.

The following tabulation may be written to contain the essential facts of the evaporation process as developed above.

	Spent Lye	Glycerin Water
	kilograms	kilograms
Coal consumption	4,000	1,500
Salt recovery	3,500	....
Excess loss in glycerin	28	....
Excess value of raw glycerin per 100 kilograms		$1.50

(In the original article there is a rather interesting discussion of the glycerin market situation but as this applies to Czecho-Slovakia only, it is of no special value to the American soap maker and it is accordingly omitted.—*Edit.*).

THE general conclusion that can be derived from this study is that the question as to which process to employ in the soap works, that is whether to split the fat or use the neutral fat saponification process depends on a number of factors which must be carefully taken into consideration if a proper answer to this question is to be given. The principal determinative factors are the quality of the original fat, the condition of the glycerin market and the character of the soap market, particularly with respect to the nature of the demand for soap, that is the kind of soap that is demanded by the trade. Whenever a choice is made of the process to employ in the soap works, that is whether to split the fat and then saponify or leave the fat as it is and saponify, and this choice is based on a proper consideration of these three factors, the selection will give the best results. But it is essential that all these conditions be carefully considered and studied before any such selection is made.

French patent 643,672 describes a device for cleaning soap kettles while drawing off the lye, thus economizing time and labor. The device consists of a rotary vertical shaft carrying a metal arm to which are attached a series of chains. These chains dredge the bottom of the kettle while the lye is being drawn off.

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INSECTICIDE AND DISINFECTANT SECTION

Official Publication of *The Insecticide and Disinfectant Manufacturers Association.*
Harry W. Cole, Holbrook, Mass., Secretary.

Research In Disinfectant Tests

IT has not been a general practice until recent years for manufacturers of disinfectants to test their products for efficiency before offering them to the trade. The comparatively few who have made such tests, however, have determined the germ-killing power, or phenol coefficient, against a single organism, namely *B. Typhosus.* The effectiveness of a disinfectant against other and more resistant disease organisms has ordinarily been taken for granted as far as the commercial evaluation of a disinfectant is concerned. Manufacturers who have declared the "phenol coefficient" on their labels have employed *B. Typhosus* in making the test, simply because this is the germ culture generally used in bacteriological examination of disinfectants. The effectiveness of the disinfectant against tuberculosis, diphtheria, pneumonia, pus and other organisms, has been quite generally ignored, and left to the imagination. Disinfectant makers, as a rule, have not tested their products against these other organisms because they have not been required to do so. The coefficient against *B. Typhosus* answered the legal requirements and they have let it go at that.

One of the larger disinfectant manufacturing companies has for some time past engaged in extensive research work on their various germicides to determine the actual killing power against all the common organisms, in addition to *B. Typhosus*, and also with and without the presence of organic matter. They have, in other words, been getting together facts and figures which give a more complete and accurate picture of the germ killing power of their disinfectants in ordinary use. They have determined the phenol coefficient of each of their disinfectants against a group of infectious and contagious disease germs instead of only one. As a consequence, they are in a position to recommend accurate dilutions at which their disinfectants are to be used in specific disease conditions. A paper covering this research work and the results obtained was read at the recent convention of the Insecticide & Disinfectant Manufacturers Association in New York, and created considerable interest and favorable comment. The paper was published in the February issue of *Soap.*

Testing a disinfectant against typhoid and then using it in the dilution recommended for typhoid in combatting a disease like tuberculosis, for example, is an uncertain and unreliable procedure. Likewise, testing a disinfectant in a medium free of organic matter and then using it in the presence of organic matter, which quite obviously interferes with its full activity, has been also recognized as faulty. The pioneering which has been done by the manufacturer in question marks one of the most important developments in years and will be of decided value to the industry, particularly to those manufacturers who see the wisdom of knowing exactly what their products will do. The employment of research in the disinfectant industry is to be commended, as it leads to confidence on the part of public health authorities and the members of the medical profession in commercial disinfectants, whereas heretofore physicians and health workers have been prone to look askance at germicides of doubtful value in the absence of recognized tests. The initial step taken by this company in complete standardization of its products is praiseworthy and merits the applause of the entire industry.

How to Use an Insecticide

AMERICAN manufacturers of liquid insecticides have spent large sums of money popularizing these products. There is no question but that a goodly part of all spraying insecticides sold are used improperly and with unsatisfactory results even though the products in question be of the highest type. Little has been done by manufacturers to educate insecticide buyers in the correct use of the products so that the best results against various insects might be secured.

(*Continued on Page* 113)

Get aboard!

NATIONAL INSECT KILLING WEEK

to be conducted

JULY 7 to 13

under the auspices of the

Insecticide & Disinfectant Mfrs. Assn.

EVERY manufacturer of insecticides owes it to himself and his business to get behind this co-operative effort to increase the sale of insecticides.

You know how badly educational publicity is needed.

Orders are now being taken at cost for the attractive window streamer in colors which has been prepared by the committee in charge. The price is $15.00 per thousand delivered.

Send your order to any member of the committee listed below or to this publication. Delivery will be made in ample time for distribution.

Watch this page for further announcements.

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Say you saw it in SOAP!

New Developments in Disinfectants

By WILLIAM H. GESELL

Vice President, Lehn & Fink Products Co.

(Before the Insecticide & Disinfectant Mfrs. Assn.)

IN discussing the progress made in the realm of disinfectant research and technology, we shall confine ourselves as in previous years to certain basic contributions which seem to possess lasting and outstanding value, instead of considering the rather extended general literature which has been published on this and pertaining subjects in the course of the past year or so.

There is one phenomenon in the scientific literature of this year which we believe deserves particular mention—namely, the endeavor of the research workers in the bacteriological field to study substances of well defined chemical composition and purity instead of testing promiscuous samples and drawing conclusions from them. We believe that some remarks are pertinent in this connection. From the viewpoint of true scientific progress, it is highly desirable that biological and particularly bacteriological work be carried out on substances, the composition of which is known to the biological worker. Formerly it was customary for manufacturers and still is, particularly in foreign countries, to place commercial samples of not well defined or not disclosed composition at the disposal of the scientific worker and for the latter to draw his conclusions on the basis of his findings. It becomes more and more apparent that the presence of minute impurities, or changes of composition which do not seem to be of importance from a chemical viewpoint, affects the final biological results very profoundly. It is, therefore, gratifying to see in modern literature on the subject, particularly in this country, that scientific papers in most cases deal with products which are well defined chemically and not with mixtures known only by their trademarks. Reports on the latter may find a place in the files of the particular manufacturer but they should not be considered fit for publication in serious scientific literature.

Theory of Disinfection

A PAPER by Gutstein (1) deals with the problem of absorption of heavy metals and dyes by living bacteria. The question whether these agents are simply absorbed or whether a chemical reaction takes place could not be decided. Gutstein assumes that probably the heavy metals act by depriving the bacteria of oxygen and food. Schumacher (2) assumes that the absorption of the disinfectant by the ectoplasm is only of secondary importance. It is necessary for a disinfectant to penetrate into the cell. The combination of the disinfectant with the ectoplasm (membrane) will not cause more than a temporary inhibition of bacterial growth.

As early as 1893 Loew (4) assumed that there are specific groups in protoplasm which fix the toxic molecule to the bacterial cell. In the case of disinfection by phenols he thought that the aldehyde group in the cell reacts with the phenol molecule chemically. More recently Voegtlin, Dyer and Leonard (3) assumed that arsenicals attach themselves to an SH-group in some cell constituents, with formation of chemical compounds. In contrast to this, Klarmann, Shternov and Von Wowern (5) believe that the disinfection by phenols depends upon the formation not of true chemical but of so-called molecular compounds between certain active protein groups, such as the amino group, and the phenol. A number of distribution phenomena and certain cases of inactivation of germicidal action by organic matter in the case of halogen phenols have led to this assumption.

Disinfecting Action and Ionization

THERE are a number of statements in the older literature according to which the addition of alkali to phenol derivatives in quantities of one equivalent or less, impair the germicidal effect. A recent paper by Halvorson and Cade (6) contains corroboration of previous findings. The germicidal effect of phenol, resorcinol, beta-naphthol and hexylresorcinol tested against Staph. aureus decreased with the increasing pH of the solution. There is a certain contrast between this and the findings of Hampil (11). This author finds that the effect of alkali cannot be quite so easily explained. Addition of 1 per cent sodium carbonate lowers the germicidal efficacy of the alkyl resorcinols from the propyl to the hexylresorcinol, while it increases it in the case of those from the heptyl to the undecyl resorcinol. Similar conditions are encountered in experiments carried out in the presence of organic matter.

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The germicidal action of trisodium phosphate is intensified by sodium chloride, i.e., by a substance with the common sodium ion, while other salts fail to do this (6). This is regarded as evidence in support of the assumption that the unionized portion of the molecule is of importance for the germicidal effect. The conditions in which the addition of alkali reduces the germicidal effect must not be confused with those in which an excess of alkali is added in order to make the germ accessible to the action of the disinfectant, such as in the case of tubercle bacilli which as is known possess a waxy coating and thus escape the action of the germicide. According to Tekelenburg (7), the germicidal action of undissociated organic acids is more pronounced than that of their respective salts.

Chemical Constitution and Disinfectant Action

THE germicidal efficacy of amines, ketones and aldehydes was studied by Tilley and Schaffer, (8). The germicidal action of aliphatic amines against B. typhosus increases with increasing molecular weight from 1.6 in the case of propylamine, to 6.5 in that of heptylamine. The disinfecting action of aniline and its derivatives, toluidine and methyl and ethyl aniline, is rather low. The bactericidal power against B. typhosus of alkyl ketones is very low, ranging from .04 in the case of dimethyl ketone to 2.3 in that of methylamyl ketone, but it is interesting to note that these phenol coefficients are almost identical with those of the corresponding aliphatic alcohols of the same number of carbon atoms. In the series of the aliphatic aldehydes tested, formaldehyde, which is the lowest of the series, shows the highest phenol coefficient of 1.05; the germicidal action of the other members increases from 0.09 in the case of acetaldehyde to 0.32 in that of the butyric aldehyde. Some interesting relations are found by calculating the so-called molecular coefficients.

The relation between the chemical action of quinones on proteins and amino acids and their bactericidal power forms the subject of a paper by Cooper and Haines (9). It is concluded that the germicidal action of the quinones is very probably associated to an important degree with their activity towards simple cell constituents, such as amino acids, and not necessarily their interaction with the cell proteins.

A paper by Sabalitschka (10), which has to do with the germicidal action of p-hydroxybenzoic acid against Staph. aureus, is rather important from a theoretical viewpoint in that it represents an essential contribution to the problem of relationship between chemical constitution and bactericidal action; p-hydroxybenzoic acid is more germicidal than phenol. While the esterification with glycerine destroys the germicidal action, formation of esters with aliphatic and cyclic alcohols leads to strongly germicidal compounds, the efficacy increasing with the molecular weight of the alkyl group. Interestingly alkyl substitution in the phenol group of the hydroxy-acid also intensifies the bactericidal effect as in the case of the esters. Halogen substitution also intensifies the bactericidal effect. The conditions are changed considerably when the test is carried out in the presence of protein. One finds first that the germicidal effect of the free hydroxy-benzoic acid is very considerably reduced, while the action of the ester is practically the same as in the absence of organic matter. This reduction of the germicidal action in the presence of organic matter is explained by the partial neutralization on account of formation of compounds with the constituents of the growing media. The conclusion is drawn that esters of hydroxy-benzoic acids are more advantageous than the free acids themselves, particularly in disinfection and preservation of easily spoiled material.

Experiments aiming at the increase of germicidal action of 2,4-dihydroxydiphenylmethane by introduction of halogen into one of the two nuclei and the differences resulting from the substitution in either were carried out by Klarmann, Shternov and Von Wowern (5). This treatment leads to products of very high germicidal efficacy, the phenol coefficients ranging from 48 to 63 against B. typhosus and 35 to 51 against Staph. aureus, while the phenol coefficients of the unsubstituted 2,4-dihydroxydiphenylmethane are 18.3 against B. typhosus and 11.3 against Staph. aureus. The latter authors also studied the influence of halogenation upon the germicidal action of resorcinol as compared with that of phenol. While the halogenation of phenol (formation of trichlorophenol) leads to compounds which are as much as 22 times more active than phenol against B. typhosus, or 25 times against Staph. aureus, the halogen substitution of resorcinol does not cause any such pronounced rize of the germicidal action. 2, 4, 6 trichloro-resorcinol has a phenol coefficient of 5 tri-bromo-resorcinol one of 6.7 against B. typhosus as compared with a phenol coefficient of the unsubstituted resorcinol of only 0.3. The respective figures against Staph. aureus

(*Continued on Page* 117)

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Say you saw it in SOAP!

Chemical Estimation of Pyrethrum

By Dr. R. C. Roark

Insecticide Division, Bureau of Chemistry and Soils

(Before the Insecticide & Disinfectant Mfrs. Assn.)

MANY chemical methods have been proposed for the quantitative estimation of the insecticidal value of insect (pyrethrum) flowers and insect powder. (See United States Department of Agriculture Bulletin 824, revised April, 1926). These methods usually call for the extraction of the material with ether, alcohol, or petroleum ether, but these solvents, while effective in removing all the active principles from pyrethrum, also extract other material of no insecticidal value. Until the nature of the active principles was announced by Staudinger and Ruzicka in 1924 (Halvetica Chim. Acta. 7, 177-259, 377-458, 1924), no definite chemical test for these principles could be developed.

Recently, Staudinger and Harder (Annales acad. sci. fennicae, Ser. A, 29, 1-14, 1927) published two methods, for quantitatively determining Pyrethrin I and II (the insecticidal principles of pyrethrum), based on the known constitution of these compounds. These methods are as follows:

1. *Determination of Pyrethrins by Titration of the Acids.* Insect powder (500 g.) is thoroughly extracted in an extraction apparatus with petroleum ether (about 18 hours). The petroleum ether extract is distilled, the last traces being removed in vacuum. The residue is repeatedly extracted with methyl alcohol (twice with 50 c.c. and 6 times with 30 c.c.). Resins and fats are separated from the combined methyl alcohol solutions by chilling in a freezing mixture after the addition of 10 per cent of water. The methyl alcohol solution is then filtered, concentrated in vacuum, and saponified by 8 hours' boiling with about five-fold excess of dilute methyl alcoholic sodium hydroxide. The solvent is removed under vacuum, water added and the alkaline aqueous solution extracted several times with ether to remove neutral constituents. After acidification, the chrysanthemum carboxylic acid is driven over by a 1 to 2 hour steam distillation. The monocarboxylic acid in the distillate is determined by titration with N/10 sodium hydroxide with phenolphthalein as indicator. One c.c. N/10 alkali is equivalent to .0168 g. of chrysanthemum carboxylic acid and .033 g. of Pyrethrin I.

For identification, chrysanthemum monocarboxylic acid may be converted into the acid chloride (by addition of thionyl chloride to the sodium salt) and this into the acid anilide. After recrystallization from petroleum ether the acid anilide has a melting point of 98-101 degrees C.

Chrysanthemum dicarboxylic acid may be extracted from the residue of the steam distillation by an 18-hour extraction with ether in a Kutscher-Stendel extraction apparatus, and after distilling off the ether may be titrated as above. One c.c. of N/10 alkali is equivalent to .0212 g. of chrysanthemum dicarboxylic acid and .0374 g. of Pyrethrin II.

2. *Determination of Pyrethrins by the Estimation of Nitrogen in the Semicarbazone.* To the methyl alcohol solution (50 c.c.) of the active principles from 500 g. material (purified as described) are added a solution of 1.2 g. semi-carbazide hydrochloric acid and 2. g. sodium acetate in 8 c.c. water. After 24 hours' standing, the solvent is evaporated in vacuum and the residue shaken 4 or 5 times with 100 c.c. water, in order to dissolve the excess of semicarbazide. The semicarbazone is then dissolved in ether and shaken repeatedly with water. After distillation of the ether, a Kjeldahl determination of nitrogen is made. One gram of nitrogen (N) is equivalent to 7.86 g. of Pyrethrin I and 8.90 g. of Pyrethrin II; average 8.38.

The total pyrethrin (Pyrethrin I and Pyrethrin II) content of a number of pyrethrum flowers examined by Staudinger and Harder ranged from 0.4 to 0.6 per cent.

Fryer, Tattersfield, and Gimingham describe a biological method of testing pyrethrum flowers (Ann. Applied Biology, 15, 423, 445, 1928). The ground flowers are soaked in a known volume of absolute alcohol for several days with repeated shaking and the clear supernatant liquid is diluted and sprayed upon aphids or caterpillars. A 0.5 per cent. solution of saponin in water is used for dilution. These authors hope at a later date to present the results of comparative tests of their biological method with the chemical method of Staudinger and Harder.

The Insecticide Division of the Bureau of Chemistry and Soils has had no experience with these methods, but they appear to be among the most reliable of all published.

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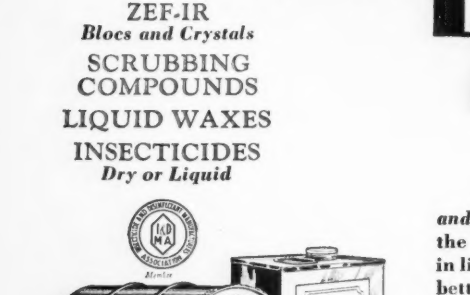

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Say you saw it in SOAP!

Control of Insect Disease Carriers

By Dr. E. K. Sprague
Senior Surgeon, U. S. Public Health Service
(Before the Insecticide & Disinfectant Mfrs. Assn.)

YOURS is a useful organization because in its results it is securing that for which the Public Health Service has been working for years, namely, the limitation of disease and the prolongation of public health. This is an old fight that was begun in early days, probably as early as the beginning of the human race. It has been one continued, constant fight and the question has risen many times as to which should be the victor. I only have to mention such common insects as the boll weevil and the locust and the potato bug and then among rodents the rats and mice for you to see at once what the fight has been. I believe these latter animals cost us—it has not been estimated—something like two hundred million dollars a year. It runs up very high, anyway. And you and I have to pay their board. There is no use for me to explain to men like this how that comes about, for the moment it is mentioned you know that such is true.

Ancient literature is replete with references to this contest. If you will go back to the days of the Israelites and Egyptians you will remember that there were ten plagues visited upon the Egyptians because they would not allow the children of Israel to return to their home, Palestine. Four of those plagues were, if we include the drought, were insect borne, through lice and flies. They were called miracles in those days but you and I know that those four plagues could easily have come without any miraculous intervention of power. Later the sacred ark when it was in transit in Jerusalem was delayed in Philistia because of the plague of field mice. Again the Psalms speaks of the pestilence that walketh in darkness. And I sometimes wonder how thoroughly those ancients may have been versed in things which we know today and which we consider almost remarkable in their discovery. Certain it is that we have known about these pestilences walking in darkness. It was found seventy-five years ago that the mosquito conveyed yellow fever. It was impossible to prove it until perfection of methods had taken place and it was fifty years before this contention was found to be truthful.

You gentlemen were somewhat slow in your organization. I might almost say that perhaps possibly you have been asleep at the switch. You ought to have been going way back there in those Dark Ages when the Israelites wanted to get out of Egypt. You should have helped in the transportation of the ark when they found pestilence spreading in the darkness.

The United States Public Health Service is particularly interested, more interested, in the disease-bearing insects and as a matter of fact practically every insect is a disease bearer. One of the most conservative writers on diseases borne by insects, Dr. Rosenow of Harvard, says and mentions twenty-three that are known to be so conveyed today. Other writers give a greater number and probably as a matter of fact we do not really have any correct idea of how many insect-borne diseases there are and probably as the years continue more of them will appear.

Now, we know, of course, that plague and yellow fever and malaria, those are very important diseases, on account of the large number of cases which prevail, more particularly of plague and malaria. Yellow fever has been pretty well handled owing to the destruction of the mosquitoes carrying the disease. Plague and malaria, while they have been reduced to a very decided extent, are far yet from being extinct. It might be interesting for you to know that in Brazil last summer they had an epidemic of yellow fever and the method which they used to destroy the mosquito as it existed in the house was of interest to me. It was said that the workers made considerable number of experiments and they found that kerosine as a base with three and one-half per cent. of carbon tetrachloride and one-tenth of one per cent. of methyl salicylate made the most efficient mosquito destroyer which they found. After mixing this material, it was put in what as near as I could make out from the description was a paint blower. At least, it was some sort of a spraying apparatus that had an electric motor attached to it to drive the fan and they would spray the rooms throughout the building with this material. They found that to be the most efficient of anything they used. The cost was two milreis or twenty-four cents, per liter, twenty-one and one-half cents a quart, so when you gentlemen begin to distribute your products in Brazil for the destruc-

(Continued on Page 115)

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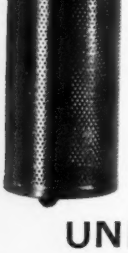

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Notes of the Trade

H. I. Koppelman, of U. S. Sanitary Specialties Corp., Chicago, sailed from New York, Feb. 16, on the S. S. George Washington, accompanied by his wife. They expected to spend several months in Europe, visiting Austria, Hungary, Germany, France and Italy. They will attend the Leipsig fair, and will return to United States about May 1.

Arthur O. Ponder, well-known tar and creosote oil magnate of Canada, associated with the Dominion Tar & Chemical Co. of Montreal, recently wrote the editor as follows from Montserrat, British West Indies: "This climate is very thirst-producing and the means of rectifying this are at hand. God save the King." Holbrook, Mass. please copy.)

Dr. George R. Reddish, of the Bureau of Chemistry and Soils, Department of Agriculture, has resigned his connection with the Government and is now associated with the Lambert Pharmacal Co., St. Louis. Dr. Reddish is well-known throughout the disinfectant industry and is a leading American authority on disinfectants.

Drucham Laboratories, New York, has been formed with offices at 1 Madison Ave., by W. Hepburn Chamberlain and John Drury to act as sales representatives for disinfectants, insecticides, and sanitary specialties. John Drury was formerly New York manager for the Midland Chemical Co., Dubuque, Iowa, and W. H. Chamberlain is New York agent for the Chamberlain-Haber Chemical Co., Cleveland. The phone number of the new company is Caledonia 9781.

The Exterminators, Fumigators and Disinfectors' Association of Illinois, has been organized in Chicago under the direction of J. W. Kaufman of the National Pesticide Co. of that city. Application for a charter has been made to the Illinois Secretary of State.

Streamers nine inches by twenty-four inches are being distributed all over the country by the National Insect Killing Week Committee. These are being sold to manufacturers for distribution at cost by the Committee, the price being $15.00 per thousand. The Committee is also distributing small stickers, 1½ by 2 inches for use on letterheads, invoices, statements, etc.

George Ermold Co., Inc., Chester, N. Y., was recently incorporated for $25,000 to deal in disinfectants, etc. Incorporators are: George Ermold, George H. Muller, Minna Ermold.

A. Srebren of A. Srebren & Co., who has lately been actively engaged with a number of plans for expansion, returned recently from a trip through Indiana. He announced that John Market has now been placed in charge of his insecticide department.

Dr. Rufus J. Ruglen, head of the Eaudemort Laboratories, Detroit, is en route to South America on a combined business and pleasure trip after spending some time at Pass Christian, Miss., on the way. He will visit a number of Latn American countries on his trp. Durng his absence, Vern A. Smith, sales manager for the company, will have charge of the business.

Chicago Drug and Chemical Association held its February luncheon meeting on Thursday, the twenty-eighth. "Sanitation and Civilization" was the subject of the lecture delivered to the members by Mr. Wood of the Plumbing and Heating Industries Bureau. Mr. Wood held the attention of his listeners closely as he traced the progress of society and showed how greatly it has been facilitated by the steady improvement in scientific methods of sanitation, hygiene and cleanliness. The annual Spring Party of this association is announced by William B. Erb, Secretary, as scheduled for March 28th.

George William Hoffman Co., Indianapolis, manufacturers of "Barkeeper's Friend Metal Polish" and "U. S. Metal Polish," was recently purchased by Walter W. Miller Co. The home office and the branch office in San Francisco will be maintained by the new company.

Household insecticides, disinfectants, deodorants, germicides, exterminators and similar preparations, amounting to 1,635,601 lbs., with a value of $567,027, were imported into the United States during December, 1928. December, 1927 imports totaled 845,757 lbs., with a value of $250,299.

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(1) 1-lb. shaker top tin cans, new style—Lithographed. G & O DEODORANT CRYSTALS WITH ALLURING odor ..... $5.40 per doz.
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(5) NICKEL HOLDERS for above cakes ..... $36.56 per gr.
(6) 2 lb. SEMI-RECTANGULAR DEODORANT BLOCKS ..... $8.64 per doz.
(7) METAL POLISH meeting strict Gov't Specifications No. 341
55 gal. drums ..... $ .48 per gal.
(8) FURNITURE POLISH of pure carnauba wax base, cedar odor. Retails $4.50 per gal.
55 gal. drums ..... $ .77 per gal.
(9) G & O LIQUID INSECTICIDE (¾ lb. Pyrethreum Base) looks, acts, smells like all of them.
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The well made finished insecticide should rest on the solid foundation of dependable raw materials.

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A well defined program of continuous research enables us to render a service that is difficult to duplicate.

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Specialists in Pyrethrum

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Insecticide Exports Larger

Manufacturers of insecticides, disinfectants, deodorants and germicides continued to expand their export trade during 1928, with the result that products valued at $6,365,000 were shipped out of the United States during that year. This represented a 25% increase over the 1927 exports which were valued at $5,109,000, according to figures prepared recently by Department of Commerce.

The export trade in insecticides has undergone a phenomenal expansion within recent years, according to Earle C. Taylor, Chemical Division of the department. In 1926 exports were valued at but $2,721,990; by the end of 1928 this had increased by 134 per cent. Shipments were largely to South America, European and North American markets.

The South American market absorbed $2,182,000, or more than 34 per cent of the total United States insecticide exports in 1928. Argentina was predominantly the most important consumer in this group, accounting for $1,525,000. Household insecticide sales alone to this country amounted to $1,334,280. Exports of copper sulphate were valued at $190,720. Other important markets in this section of the world were Colombia ($187,470), Chile ($126,900), Venezuela ($118,560), Uruguay ($95,300) and Peru ($94,140). As in the case of Argentina, the greater part of these exports consisted of household insecticides.

Glyco Products Co., Brooklyn, N. Y., are now manufacturing and offering a permanent emulsion of carnauba wax as a base for polishes. This is the first time a stable carnauba emulsion, which will not separate out on standing, has been commercially available, the company states. The process is covered by patent. The emulsion is milk white, contains ten per cent carnauba wax, and is miscible in all proportions with water without "breaking". The company is located at Building No. 5, Bush Terminal, Brooklyn.

United States Senate recently passed a bill appropriating $1,030,000 for enforcement of Food and Drugs Act, $224,000 for Insecticide Act and $26,700 for Caustic Poison Act. These amounts represent increases needed because of expansion of investigations and inspections. Dr. P. B. Dunbar, assistant chief of Food, Drug and Insecticide Administration pointed out that the work of the Administration has resulted in higher quality products and more truthful statements concerning those products.

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Say you saw it in SOAP!

Honor Dr. Dow at Chemical Dinner

Dr. Herbert H. Dow, founder and president of the Dow Chemical Co., Midland, Mich., was the guest of honor at the annual dinner of the Chemists' Club, New York, Feb. 27. Close to 150 men, prominent in the chemical and related industries, attended the affair. Before Dr. Dow was introduced, his accomplishments in the chemical industry were discussed by James T. Pardee, vice president of the Dow Company, E. M. Allen, president of Mathieson Alkali Works, and Dr. Charles L. Reese of E. I. du Pont de Nemours & Co. Mr. Pardee gave those attending the dinner an insight into Dr. Dow's intimate business life, Mr. Allen spoke of him as an industrialist and Dr. Reese discussed his contributions as a chemist. In responding Dr. Dow gave the diners a brief outline of the company's history and traced the development of processes of major importance in its career. He particularly discussed the development of the chlorine unit, having illustrated his talk with a number of charts along with photographs of the first chlorine installations.

DR. H. H. DOW

Dr. Dow was born in Belleville, Ont., Feb. 26, 1866, the dinner having also been in the nature of a celebration of his 63rd birthday. He was educated at Case University, having graduated in 1888. In 1890, along with several Cleveland associates, he formed the Midland Chemical Co., locating at Midland, Mich. This was combined with the Dow Process Co., in May, 1897, to form the present Dow Chemical Co. Bleach and bromides were the main products of the company until early in 1900 when other chemicals obtained from the brine wells were utilized in adding to the line. This has grown to the point where well over a hundred basic industrial and pharmaceutical chemicals are now being manufactured at the Dow plant. These include paradichlorbenzene, carbon tetrachloride, caustic soda, coumarin, methyl salicylate and methyl anthranilate.

William H. Quade, formerly with Meyer Brothers and the William P. Kahn Corporation, has now become associated with the Dealer Sales Corporation, of St. Louis. The Dealer Sales Corporation is the firm that, until lately, was known as the Koken Company.

HUDSON SPRAYERS

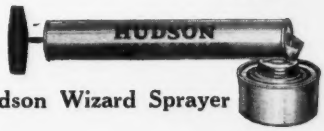
help your product make good!

EIGHTY DIFFERENT STYLES
from which to choose —
from 5 ounces to 100 gallons

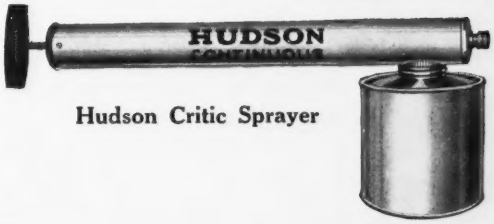
"A Pattern for every Purpose"

Here are four outstanding patterns in the insecticide world today.

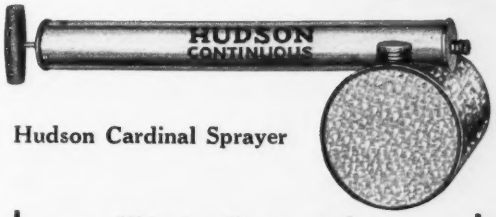
Hudson Fog Sprayer
Trademark Registered



Hudson Wizard Sprayer



Hudson Critic Sprayer



Hudson Cardinal Sprayer

Write for 42 page catalog.

HUDSON MANUFACTURING CO.

MINNEAPOLIS, MINN.
New York City 147 Chambers St. Philadelphia Dela. & So. St. Chicago 550 McCormick Bldg.

LETHANE

Patent Applied for

LETHANE CONCENTRATE

Replaces Pyrethrum Flowers

Either wholly or in part, in the manufacture of household insecticides. Non-irritating and non-injurious to materials. Uniform and positive in action.

LETHANE 22

A New Insecticidal Fumigant

Highly penetrating and unexcelled in efficiency by any other fumigant. Non-toxic, easily applied and the most economical insecticide of its type available.

Further particulars and samples gladly furnished

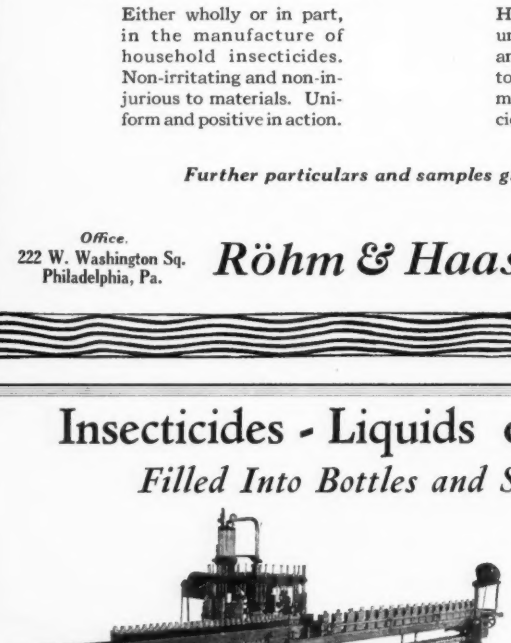
Office.
222 W. Washington Sq.
Philadelphia, Pa.

Röhm & Haas Co., Inc.

Works
Bristol, Pa., and
Bridesburg, Pa.

Insecticides - Liquids of All Kinds

Filled Into Bottles and Small Cans



Production!—at lowest cost with a Kiefer Rotary Vacuum Filling Machine.

One inexperienced operator needed to feed bottles—discharge direct to cappers, corkers, etc.

Clean filling — no dripping onto bottles; no overfilling; no wiping of bottles.

Broken and imperfect bottles pass through machine and no liquid goes into them.

All metal contact; no rubber tubes to rot and cause trouble.

Constant, uniform production.

The Kiefer Rotary Vacuum Filling Machine is made in four sizes. Write for catalog showing these and our semi-automatic machines.

The KARL KIEFER MACHINE CO.

CINCINNATI, O.

INSECTICIDE AND DISINFECTANT MANUFACTURERS ASSOCIATION I&D MA

Lehn & Fink Products Corp. reported net profit of $1,906,269 for 1928, equivalent to $4.59 a share on the 415,000 shares of common stock, as compared with $1,277,142 or $3.07 a share, in 1927.

Two new disinfectants, Ufinol and Tusputol, coal-tar phenols combined with oleic acids, are being manufactured by Ufinol G.m.b.h., of Muhlheim-Ruhr, Germany. Ufinol is a hand, laundry, instrument and floor disinfectant, and Tusputol is a tubercular sputum germicide. Both are dark brown in color.

A new firm in the disinfectant field is Day Chemical Co., 119 Aldene St., Newark, N. J. This company has just opened a plant for the manufacture of deodorizing blocks, cakes and crystals. It is planned to extend the line of products manufactured as soon as business warrants.

United States imported 1,024,083 lbs. of pyrethrum flowers from Jugoslavia, valued at $237,648, during 1928, as compared with 623,970 lbs., worth $99,306, in 1927, and 77,693 lbs. in 1926. The 1928 imports amounted to about one-third of the Jugoslavian crop.

Abe Plough, head of the Plough Chemical Co., Memphis, Tenn., recently opened a new drug store at Main and Madison Sts., Memphis, under the name of Pantaze Drug Store. Advertised merchandise will be featured exclusively.

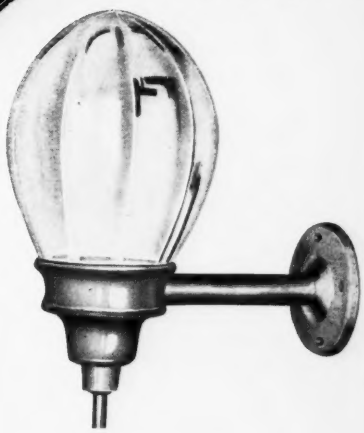
Pepsodent Company recently announced the appointment of C. H. Waterbury as representative in charge of certain special accounts. Mr. Waterbury was formerly connected with Lehn & Fink, Inc.

Roessler & Hasslacher Chemical Co. will move to larger quarters in its new building now being constructed at 10 East 40th St., New York, about April 1st. The new building is just around the corner from the Chemists' Club.

It is estimated that the earnings of Merck & Co. were 50% greater in 1928 than in 1927, when they amounted to $5.74 a share on the 40,000 shares of common stock. This estimate is made on the strength of the merger with Powers-Weightman-Rosengarten, occurring in 1927, which brought more business and numerous economies to Merck & Co. during 1928.

Perfection. Peerless among Soap Dispensers . . . . . Price . . . . . without Sacrifice to Quality

Perfection Model 125—Designed for the low-price trade—but sacrificing nothing for price . . . no wonder the Perfection is outstanding in its class!



6 *Features*
Distinguish the Perfection Dispenser

1. The Perfection is made of White Metal. It cannot corrode. Most Push-up Dispensers are made of cheaper metals and leak.
2. The Perfection's handsome globe is blown glass corrugated—not moulded glass with seam.
3. The push-up valve is tooled to precision—all parts enclosed in housing. The spring does not protrude up into the soap.
4. Perfection is leak-proof. Its patented cone type shut-off keeps the channel free from hardened soap and makes a positive closure.
5. Replacement of globe is easy—simply screw into worm thread opening.
6. Each Perfection Dispenser is packed in an individual shipping carton with screws.

Quantity production enables us to sell the Perfection at prices heretofore unheard of for a dispenser of its specifications. Prices so low you can sell it at a profit or give it away. Write for sample and prices.

U. S. SANITARY SPECIALTIES CORPORATION
435-41 South Western Avenue
Chicago, Illinois

Trade Mark

HEX

Reg. U. S. Pat. Off.

TAR ACID OIL

CHILLED AND FILTERED — NO SEDIMENT

Makes up a milk-white emulsion with
a good odor. — Cheapest
in the long run.

Prices according to STRENGTH

TAR PRODUCTS CORPORATION

(NEW ENGLAND DIVISION, AMERICAN TAR PRODUCTS CO., PITTSBURGH, PA.)

REFINERS AND MANUFACTURERS

PROVIDENCE, RHODE ISLAND

Office—99 Empire St. Works—East Providence

New York Office—120 Broadway: Paul L. Hayden, Mgr.

now offering

WATER SOLUBLE ODORS

for theatre sprays

Lily Oriental — Rose — Verbena — Lilac
Carnation — and others

of the same quality as our regular line for

LIQUID SOAPS, DEODORANTS, SPRAYS, etc.

These odors are fragrant, stand up perfectly and will last. They are priced reasonably. *Samples and quotations on request.*

Do you want an individual odor in your products—something that is noticeable among competing sprays, deodorants, liquid soaps, etc. If so, tell us what type of perfume you want and we will originate something for your exclusive use.

GEORGE V. GROSS CO.

30 OLD SLIP
NEW YORK CITY

Los Angeles Office—782 South San Pedro St., M. B. ABRAHAMS

Say you saw it in SOAP!

Buschmann, President Metal Pkg.

S. L. Buschman, for the past nine years vice-president of the Metal Package Corp. of N. Y., was recently elected president of the company

S. L. BUSCHMAN

ALFRED E. BRUNS

to succeed Alfred E. Bruns, who has become chairman of the board. Mr. Buschman has been in the can business for 25 years, joining Shalita Brothers in 1905, and becoming vice-president in 1914. When that company was taken over by Metal Package in 1920, he was made vice-president of this latter company. Other officers elected this year are George S. McCreedy, vice-president and secretary, and Ernest Ekstein who remains as treasurer.

How To Use an Insecticide

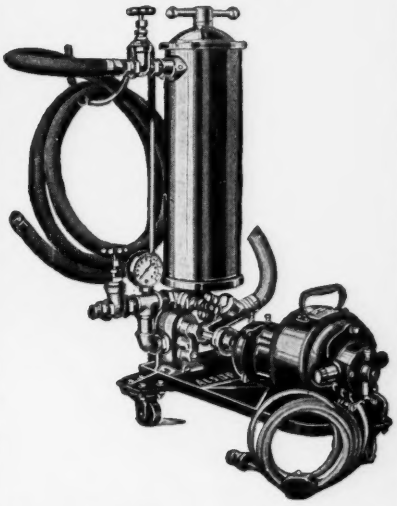
(*From Page* 95)

As part of the publicity in connection with *National Insect Killing Week*, July 7 to 13, the Committee is preparing a four page booklet entitled "How to Use a Liquid Insecticide". The plan calls for the publication in plain language of a booklet telling exactly how to spray an insecticide, when and where to spray it, and generally how to combat each common type of insect. The information will be specific and easy to understand. The booklets will be printed in quantity and will be sold to individual manufacturers at cost by the Committee. The back page of the booklet will be blank so that each manufacturer can have his own product advertised there, either through arrangements with the Committee or by his own printer. The object of the booklets is to have them distributed widely and available in drug, hardware, and grocery stores throughout the country immediately before and during *National Insect Killing Week*.

This is a good job undertaken. The Committee deserves wide support in its efforts.

Hy-Speed

INTERNAL PRESSURE FILTER



CLARIFIES LIQUID PRODUCTS

This remarkably efficient filter unit utilizes the principles of internal pressure to give more filtering area and more pressure per square inch than is possible in any machine of similar size. The result is the production of a crystal-clear filtrate.

CLEANS MORE EASILY

This filter is practically automatic and self-cleaning. . . . and filter screens can be cleaned and replaced in less than two minutes.

Write for Catalogue

•ALSOP• ENGINEERING CO.

47 West 63rd St., New York City

"PARADI"

Trade Mark Reg. U. S. Pat. Off. 161837

Paradichlorbenzene

Specially prepared for

Moth Preventatives and Deodorizing Blocks

For Immediate Shipment in
200, 100 or 50 *Pound Barrels*

Write us for prices on this material and other
HOOKER CHEMICALS of Quality

HOOKER ELECTROCHEMICAL COMPANY

EASTERN
Sales Office: 25 Pine St., New York City
Plant: Niagara Falls, N. Y.

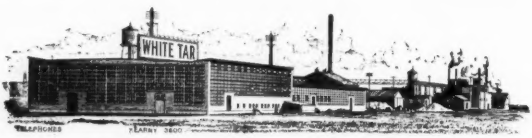
HOOKER E CO ELECTROCHEMICAL

WESTERN
Sales Office: Tacoma, Wash.
Plant: Tacoma, Wash.

THE WHITE TAR COMPANY
of New Jersey, Inc.

Founded in 1886

Belleville Turnpike **Kearny, New Jersey**



Naphthalene of Uniformly High Quality

Refined — High melting point — Prime White. In flakes, crushed, crystals, lumps, powder, balls, tablets, blocks—for use in making moth preventives and deodorizing blocks. Furnished in bags, kegs, barrels and small retail packages. A carton or a carload.

Spring contracts on Naphthalene now being closed

F. O. B.
Works

Kearny
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(Ivorydale)
Ohio

INSECTICIDE AND DISINFECTANT MANUFACTURERS ASSOCIATION I&D MA

Say you saw it in SOAP!

Order Your Streamers

NATIONAL INSECT KILLING WEEK COMMITTEE is now distributing streamers for use by *all* manufacturers of insecticides. These streamers are 9 by 24 inches and are being sold by the Committee to manufacturers at cost,—$15.00 per thousand. All manufacturers should help in this work and send out the streamers through their distributors. Order from the Committee, care of John Powell & Co., 114 East 32rd St., New York.

National Insect Killing Week is July 7 to 13. Order your posters now so they can be delivered to you early. Help the sale of your own goods by helping National Insect Killing Week!

Monsanto Chemical Works, St. Louis, has announced the following officers for the ensuing year: John F. Queeny, chairman of the board; Edgar M. Queeny, president; Gaston DuBois and John Boyer, vice-presidents; J. W. Livingston and Dr. J. Bebie, assistant vice-presidents; A. G. Fletcher, comptroller; J. D. Gillis, assistant to the president; W. R. Phemister, treasurer; W. W. Schneider, secretary; C. A. Zacher, asst. secretary; J. W. Ludwig, auditor.

Insecticides valued at $4,434,682, were exported from United States during 1928, an increase of about 22% over the 1927 exports which were valued at $3,649,962.

Insect Disease Carriers

(*From Page* 103)

tion of mosquitoes you will know what price you have got to put on them to make them popular with the Brazilians.

The Public Health Service, as I say, has always been greatly interested in work of this character, the work which you are carrying out, and whenever it can it helps in such measures. I recall to mind distinctly the work which we did some two years ago with the tetra-ethyle gasoline. Work on that has not yet stopped. It is in progress today and I mention that as one of the indications of the interest that the Public Health Service has in general health matters and I can assure you that if there is any way in which the Service can co-operate with your Association that it will be glad to do so.

Handles Like A Gun And is Just As Deadly to *Germs - Insects - Moths Offensive Odors*

The Presto Model 102 Electric Spray Gun is a new and effective weapon for use in exterminating germs, insects, moths and offensive odors.

For it gives users of disinfectants, insecticides and deodorizing liquids a handy, fast, inexpensive method of application.

The coupon will bring you complete information regarding the easily handled, easily controlled Presto 102 Electric Spray Gun—the high speed Universal motor that assures long trouble-free operation—the pistol shaped handle that fits comfortably in the hand — the specially designed fan that completely atomizes the liquid in the jar—the low price that makes the gun profitable on small, intermittent jobs. Mail the coupon today.

Metal Specialties Mfg. Co.

336-352 N. KEDZIE AVENUE, CHICAGO

Mail the coupon today

Please send me the special folder and prices on the Presto 102 Electric Spray Gun.

Name .....

Company .....

Address .....

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Liquid Soap Dispensers
with a *New Bowl Replacement Feature*

Broken bowls easily replaced without cement, or sending the parts to the factory. Brackets need not be taken from wall.

Bowls are as securely attached to bracket as if cemented and cannot be removed unless broken.

The New Palmer "Letter Series" *Line*
A Style for Every Requirement — Fully Guaranteed.
Write for Descriptive Literature.

Manufacturers of
School Supplies
Janitor - Sanitary

PALMER PRODUCTS, Inc.
Main Offices, Factory and Laboratories
WAUKESHA, WISCONSIN
New York Office - 528 W. 40TH ST.

Send for Complete Catalog

When You Select a SPRAYER for Your Product Remember We Build Sprayers to Order

It is also a fact that ACME sprayers—always sold under a money-back guarantee—have in nearly half a century of time gained the highest point of perfection. There is an ACME sprayer to suit practically every need.

Better Results from ACME Sprayers

The better the sprayer the better the results obtained from your product. Therefore, it will pay you to consider the ACME. Noteworthy improvements include our No. 200 sprayer with its superior drip cup attachment, the co-ordinated air and spray tubes that create the most effective mist; the special leather plunger and the improved can screw which prevents siphoning when sprayer is not in use. *Write for samples and prices*

POTATO IMPLEMENT CO., Dept. 34—Traverse City, Michigan

Say you saw it in SOAP!

Developments in Disinfectants

(*From Page 99*)

are 4.3 in the case of 2, 4, 6-tri-chloro-resorcinol and 6.4 in that of 2, 4, 6-tri-bromo-resorcinol, as compared with 0.4 of the unsubstituted resorcinol.

Temperature has an effect upon the position of compounds in the homologues series, when rated according to their germicidal efficacy. Hampil (11) has shown that in the series of alkyl derivatives of resorcinol, heptyl-resorcinol is the most efficacious at 20 degrees with a phenol coefficient of 127 as compared with that of 80 for hexyl-resorcinol and of 63.6 for octyl-resorcinol, its immediate neighbors in the series. At 37 degrees, however, octyl-resorcinol is the most efficient one with a phenol coefficient of 300 as compared with that of 280 of heptyl-resorcinol; at this temperature monyl-resorcinol shows a phenol coefficient of 20, although it is inactive at the lower temperature of 20 degrees C. Still more striking conditions are encountered at 45 degrees, at which temperature the nonyl-resorcinol, which was entirely inactive at 20 degrees and comparatively little active at 37 degrees, becomes the strongest in the series with a phenol coefficient of 233 as compared with that of 200 in the case of nonyl-resorcinol and of 30 in the case of decyl-resorcinol at the same temperature.

It was known that iso-alkyl derivatives of resorcinol are somewhat less active than the corresponding normal alkyl compounds. This may be seen, for instance, by comparison of the phenol coefficient of iso-hexyl-resorcinol (75) with that of n-hexyl-resorcinol (80). However, much greater differences are found in the case of the corresponding keto derivatives. Thus iso-amylyl-resorcinol shows a phenol coefficient of 2.7 as compared with that of n-amylyl-resorcinol which is 45.4.

Impairment of Germicidal Action By Organic Matter

THE same paper by Hampil contains some very valuable information on the subject of impairment of germicidal action by organic matter, particularly of substances with high germicidal potency. It was found first that the composition of the peptone broth exerted a very pronounced difference upon the germicidal action of the higher members of the series of alkyl-resorcinols, while no such pronounced differences were observed with the lower members. Thus, the phenol coefficient of heptyl-resorcinol at 20 degrees is 127 with "Difco" broth and only 49 with "Witte" broth. The corresponding figures are 280 and 100, respectively, at 37 degrees. Addition of 3 per

VOGEL

Insecticide Sprayer

A substantially constructed sprayer that will stand up under hard usage, priced at a remarkably low figure.

Made by specialists in sheet-metal goods for more than half a century, both our hand and continuous sprayers represent the greatest value on the market. Hand and continuous sprayers, designed and manufactured to give the greatest value for the least outlay.

Also Manufacturers of

Shaker Top Cans
for paradichlorbenzene crystals

Plain or Decorated

Tin Cans
for Pastes, Soft Soaps, Dry and Liquid Insecticides.

Holders for Deodorizing Blocks

Write us about your requirements and we will gladly submit samples and prices without any obligation on your part.

William Vogel & Bros.

Incorporated

"IN BUSINESS OVER 50 YEARS"

37-47 SOUTH 9th STREET
Brooklyn, N. Y.

6 Features Distinguish Nox-Kwik The Perfect Insecticide

1. NOX-KWIK kills flies, mosquitoes, bed-bugs, ants and other winged insects. (It does not merely stun as ordinary insecticides do.)
2. NOX-KWIK is always of standard uniform strength—100% active ingredients.
3. NOX-KWIK is non-poisonous and practically odorless. It will not contaminate foodstuffs.
4. NOX-KWIK is stainless. It will not harm the finest fabrics, furniture or metals.
5. NOX-KWIK is economical in use. Less of Nox-Kwik is required than the ordinary fly sprays.
6. NOX-KWIK will be pleasantly perfumed at slight additional cost.

[NOX-KWIK is packed in various size containers from a 65 gallon drum to a half pint can.]

Now Quick Profits and Repeat Sales With

FLY SPRAY **Nox-Kwik** FLY SPRAY

The All Purpose Liquid Insecticide

We are protected on raw materials for 1929 and can offer attractive prices and contracts on Nox-Kwik to Jobbers.

Please request samples and quotations. Furnished either scented or unscented.

U. S. SANITARY SPECIALTIES CORP.

Laboratories and Works — 435 So. Western Ave., Chicago

Bouquet No. 77

The

FLY SPRAY

PERFUME

THE season is fast approaching when fly sprays will be in great demand. Be prepared to offer your customers a product they will be pleased to use. A product in which the petroleum distillate is fully disguised when it is sprayed.

Bouquet No. 77 is economical to use—1 ounce to 1 gallon of spray. Guaranteed not to stain or possess a "medicine like" odor. *Let us submit samples.*

Member INSECTICIDE AND DISINFECTANT MANUFACTURERS ASSOCIATION I&D MA

P. R. DREYER INC.

26 CLIFF STREET NEW YORK

Sole Representative of

Grasse - BERTRAND FRERES - France

Sole Selling Agent for

VANILLIN FABRIK Hamburg, Germany *Aromatic Chemicals*

NORD AFRICAN COMMERCIAL Alger, Africa *Oil Geranium*

H. RAAB & CO. Roermond, Holland *Artificial Musks*

PAOLO VILARDI Reggio Calabria, Italy *Messina Essences*

Say you saw it in SOAP!

cent organic matter to the disinfectant results in a very considerable reduction of its efficacy. Thus the phenol coefficient of hexyl-resorcinol, which is 120 at 37 degrees, is reduced to 31 by 3 per cent organic matter; in other words, loses 74 per cent of its efficiency. Nearly total inactivation is observed in the case of heptyl-resorcinol, while octyl-resorcinol actually loses its efficacy entirely, in spite of the high phenol coefficient of 300 at 37 degrees without organic matter.

The influence of organic matter upon the germicidal action of poly-chloro-phenol derivatives was studied by Klarmann, Shternov and Von Wowern (5) and certain interesting relations were found which point to a very considerable reduction of germicidal efficacy by even the small amount of organic matter which is present in the quantity of culture transplanted in the testing process. The following single instance may serve as an illustration: The phenol coefficient of tri-chloro-phenol against B. typhosus when tested under the conditions of the modified Rideal-Walker method is found to be 21.1. When most of the organic matter is removed by centrifuging and washing the culture with a physiological salt solution, the phenol coefficient rises to 42.7. This rise is not caused by a reduction of the viability of the germ, because with phenol itself approximately the same figures are obtained with both the untreated and the treated culture. Addition of 3 per cent organic matter as required by the specification of the test causes a further reduction.

The influence of soaps upon the germicidal action of phenol and phenol derivatives has been studied repeatedly and there are a number of references on the subject in the literature. Hampil (12) reports a series of experiments in a recently published paper, according to which soaps such as sodium oleate, sodium myristate, potassium palmitate and potassium stearate show a very marked inhibitory action upon the germicidal efficacy of phenol, m-cresol, n-butyl-resorcinol and n-hexyl-resorcinol. The inhibitive action of the soap is probably due to a removal of the phenolic substance from the solution.

New Disinfectants

RECENTLY two new disinfectants have been placed on the market in Germany—i.e., Tusputol and Ufinol. Particularly the first was suggested for use in the disinfection of tuberculous sputum. However, according to Joetten and Sartorius (13), they cannot be regarded as superior to "Alkalysol" and other similar preparations for sputum disinfection.

The active principle of the preparation "La-

CRESYLIC ACID

97-99%

CRUDE CRESYLIC ACID is such a broad term as to be almost meaningless. It is often used to include all of the coal tar acids from the low boiling phenols up through the cresols. Sometimes the term includes the xylenols and the even higher boiling homologues.

Therefore, in sending us your inquiry please include such details as desired distillation range, color, odor, etc. We can then make a more intelligent offering from the limited quantities of both domestic and imported duty-free 97/99% Cresylic Acid that we now have available.

Other Industrial Chemicals supplied by the American Cyanamid Company include:

Anhydrous Ammonia	*Formic Acid*
Aqua Ammonia	*Hydrocyanic Acid, (Liquid)*
Ammonium Chloride	*Red Prussiate of Potash*
Ammonium Phosphate	*Sodium Phosphates, Di and Tri*
Carbonate of Potash	*Sulphur*
Case Hardening Compounds	*Sulphocyanides (Thiocyanates)*
Chromic Acid	*Thiourea*
Copper Sulphate	*Urea*
Cresylic Acid	*Yellow Prussiate of Potash*
Diorthotolylguanidine	*Yellow Prussiate of Soda*
Diphenylguanidine	
Ethyl Lactate	
Ethyl Oxybutyrate	

Industrial Chemicals Division

AMERICAN CYANAMID COMPANY
535 Fifth Avenue : : New York

CRESYLIC ACID

All Grades

CREOSOTE OILS

Cresol U.S.P. — Specially prepared for disinfectant manufacturers. — **Phenol U.S.P.**

COAL TAR PRODUCTS

WM. E. JORDAN & BROTHER, 2590 Atlantic Ave., Bklyn., N. Y.

Mechanics Bank Bldg. **Telephone Glenmore 7318-7319**

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IMPORTERS Incorporated MILLERS

PYRETHRUM

(K&H)

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Insect Powder

Half-Closed Dalmation

Closed Dalmation

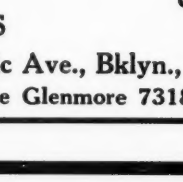
Japanese

Contracts Solicited

Insect Flowers

Allow us to quote you direct from the go-downs of Japan and the interior collecting centers of Dalmatia or our own spot stock.

"Headquarters for Bulk Buyers"



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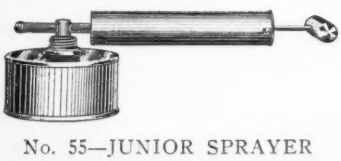

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References

1. M. Gutstein, Centralblatt f. Bakteriol. 104, 410 (1928).
2. J. Schumacher, Centralblatt f. Bakteriol. 107, 161 (1928).
3. C. Voegtlin, H. A. Dyer, and C. S. Leonard, Journ. Pharmacol. 25, 297 (1925).
4. O. Loew, Natuerliches System der Giftwirkung, 1893.
5. E. Klarmann, J. Von Wowern and V. A. Shternov, Paper presented before the Division of Biological Chemistry at the September (1928) meeting of the American Chemical Society, Swampscott, Mass.
6. H. O. Halvorson and R. E. Cade, Proc. Soc. Exptl. Biol. Med. 25, 7, 506 (1928).
7. F. Tekelenburg, Nederland, Tijdschir, Hyg. Microbiol. Serol. 2, 176 (1927).
8. F. W. Tilley and J. M. Schaffer, Journ. Bacteriol. 16, 279 (1928).
9. E. A. Cooper and R. B. Haines, Biochem. Journ. 22, 317 (1928).
10. T. Sabalitschka, Zeitschr. f. angew. Chemie. 41, 621 (1928).
11. B. Hampil, Journ. of Infectious Diseases, 43, 25 (1928).
12. B. Hampil, Journ. of Bacteriology, 16, 287 (1928).
13. K. W. Joetten and F. Sartorius, Med. Klinik, 24, 180 (1928)."

Imports of pyrethrum flowers into the United States during December, 1928, totaled 716,800 lbs., with a value of $218,669, as compared with the 428,259 lbs., worth $66,181, which were imported during December, 1927.

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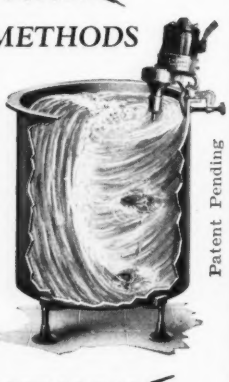

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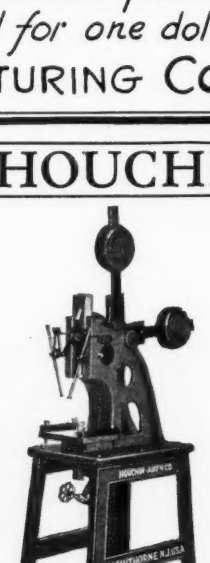

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No. 251,990. Soap. Picot Laboratories, Inc., Buffalo, N. Y. Filed September 28, 1928. Serial No. 273,114. Published November 6, 1928. Class 4.

No. 251,993. Shampoo. Maxine Products Co., Detroit. Filed June 2, 1928. Serial No. 267,369. Published November 6, 1928. Class 4.

No. 252,020. Soap. Quynn Products Co., Brooklyn. Filed March 3, 1928. Serial No. 262,575. Published November 6, 1928. Class 4.

No. 252,055. Cleaning Composition. Nifty Cleaner Co., Montgomery, Ala. Filed July 30, 1928. Serial No. 270,343. Published November 6, 1928. Class 16.

No. 252,066. Shaving Cream. The Norwich Pharmacal Company, Norwich, N. Y. Filed August 3, 1928. Serial No. 270,555. Published November 6, 1928. Class 4.

No. 252,107. Toilet Soaps. Stern Bros., New York. Filed September 11, 1928. Serial No. 272,231. Published October 30, 1928. Class 4.

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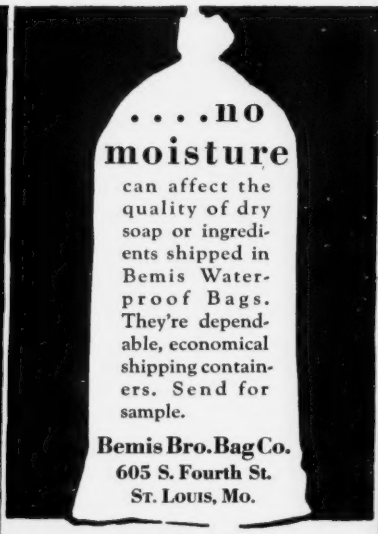
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